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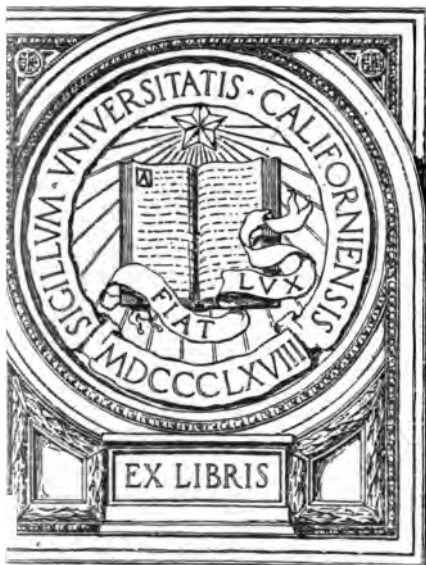
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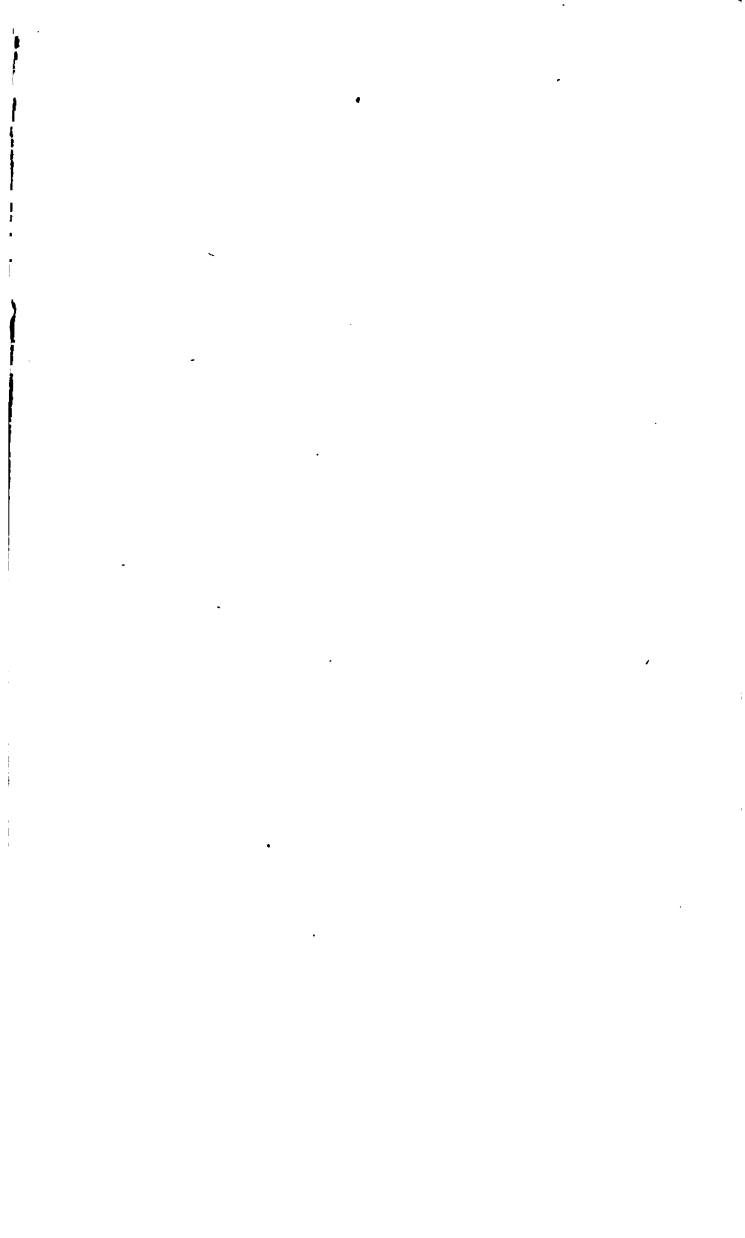


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THE
STUDENTS' GUIDE

TO THE

University of Cambridge.

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THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART I.

INTRODUCTION—EXPENSES—NON-COLLEGIATE STUDENTS.



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INTRODUCTION.

THE direct object of a Student at Cambridge is to obtain one of the degrees which are conferred by that University, in the faculties of Arts, Law, Medicine, Divinity¹, and Music. The first degree which is conferred in these faculties is that of Bachelor, and the vast majority of Students become Candidates for the degree of Bachelor of Arts. [It is the object of this introductory article to describe in outline the course of a Student before he takes his degree; in technical language, of an Undergraduate; and in such a manner and with such careful explanation as to make, if possible, the whole subject clear even to persons who have no previous acquaintance whatever either with this or any other University.]

In order to obtain the Bachelor's degree it is

¹ The degrees in Surgery and Divinity being only granted to persons who have already graduated, i.e. taken a degree in Arts, it will not be necessary to allude again to these in this Introduction. It is proposed to institute a degree of Bachelor of Surgery, but the arrangements for it are not yet completed.

indispensably necessary, (1) to reside for a certain period in Cambridge, (2) to become a member of the University by being admitted either as a member of a College, or as a Non-Collegiate Student, (3) to pass certain examinations.

The period of residence is measured by terms, i.e., the divisions of the year during which the business of the University is carried on. These are three in each year, the Michaelmas or October Term, beginning on the 1st of October and ending on the 16th of December, the Lent Term, beginning on the 13th of January and ending on the Friday before Palm Sunday, the Easter or May Term, beginning on the Friday after Easter Day and ending on the Friday after Commencement-Day, which is the last Tuesday but one in June.

Statutes now under consideration give the University power, within certain limits, to fix the beginning and end of each of the three Terms in the year from the 1st of October to the 24th of June; the three always to include 227 days at least, and the days from Good Friday to the Monday after Easter Day, inclusive, to be always in vacation.

As the period of residence may commence in any of the three terms, it will be desirable to point out at which time residence may, generally speaking, be most conveniently commenced. And for the purpose of a general rule, it will only be necessary to consider the case of Students in Arts, since these form the great majority.

These Students are to be distinguished as either Candidates for Honours, or Poll men, that is, Candidates for the ordinary B.A. degree without special honour or distinction.

The period of residence required in Arts is nine terms. Thus a person entering in January may become eligible for his degree in the December of the next but one succeeding year ; he who enters after Easter, in the March of the third year after ; he who enters in October, in the June of the third year after. But the three terms of the year do not all offer the same opportunities of undergoing the prescribed examinations. The final examinations for the ordinary B.A. degree occur only twice a year, and a Poll man who enters in the Easter Term must wait an additional term before he can be examined for his degree. For a Poll man who wishes his University course to be as short as possible, the choice is thus limited to January and October ; and it is plain that he who enters in October has the shorter course, owing to the fact that the Long Vacation, as it is called, that is the time during which lectures are suspended between June and October, enters only twice, and not three times, into his course. This then is a practical reason for entering in October for all such as wish to arrive as soon as possible at their goal, that is, for all who believe themselves able to master in this time the subjects in which they are to be examined, and who aim at nothing beyond the Ordinary Degree, i.e., the degree of

Bachelor of Arts simply, without special distinction. And the course of Examinations for this Ordinary Degree is in truth not so difficult but that any person of common abilities, and common preliminary training, with tolerable industry while at Cambridge, may reckon with certainty upon passing it. But for those who wish to win their degree with honour and distinction, which is the best time to enter? Such persons may desire their time of probation to be as long as possible, in order that their attainments may be the greatest possible. Now to Candidates for Honours in any Tripos a limiting period is fixed, in order to equalize the competition. The Honour Examinations are held only once a year. The Examinations for the Mathematical, the Classical, the Natural Sciences, the Moral Sciences, the Law and the Historical Triposes occur (mainly, at least) in June, and to be examined then in one of these, and gain a degree as well as Honours by it, a student must have entered on his eighth term at least, having previously kept seven terms, and nine complete terms, or, in the case of the Mathematical Tripos, more than nine, must not have passed since his first term. The examinations for the Theological, the Semitic Languages and the Indian Languages Triposes are held in January and February, and it is required that a Candidate for any of these who has not already obtained Honours in some Tripos shall have entered on his ninth term at least, having previously kept eight terms, and that not more than ten terms shall

have passed since his first term. The student may therefore generally secure the option of the shortest or the longest period of preparation by entering after Easter. But College arrangements never encourage this, and in some cases they do not permit it. It is sometimes not inconvenient to commence residence in January. The most convenient and usual time for entering the Colleges is October. The course of studies prescribed in each College begins at this point; and the Examination held in each College on the eve of the Long Vacation, for those of its students who are not at the time undergoing any University Examination, commonly embraces the subjects on which lectures have been delivered from the October previous. Other considerations make it undesirable for an average student to commence his residence in the Easter Term, when the season invites to an anticipation of the enjoyments of the Long Vacation, and the studies which go forward are less of the steady and quiet kind by which solid progress is made, than of the violent competitive kind by which prizes and Scholarships at the Colleges are won. It is not convenient that a young student should make his first acquaintance with the University at so unsettled a time. In exceptional cases these considerations are of less importance. Non-Collegiate Students, who are only partially affected by College arrangements, may enter in any term, subject to the above-mentioned conditions as to the times at which the University examinations occur.

But even these students may in their first year at least derive more assistance from the College lectures which are open to them, if they have entered in October, than if they have chosen either of the other terms for the commencement of their residence.

A person is not said to be *resident* in the University even though he be living in Cambridge, unless he be occupying either rooms in College or one of the lodging-houses in the town which have been licensed to receive University men, or be living with his parents, or, under special circumstances approved by the authorities of the University, with other friends or in his own or in a hired house. To avoid ambiguity, mention may be made thus early of Cavendish College, an institution recently founded and especially adapted for the purpose of enabling students somewhat younger than ordinary undergraduates to pass through the University course and obtain the University degrees. Its members are admitted to the University as Non-Collegiate students, and their residence at the College specially approved in each case by the authorities of the University. Not having the position and privileges of an incorporated College, it will not be included in any mention of Colleges in the rest of this paper; and it will be left to the reader to distinguish its members from ordinary Non-Collegiate students. Once resident, a student or pupil, that is, every member of the University under the degree of Master in some faculty, cannot go out of residence without the

written permission or *exeat*¹ of the Tutor of his College, or, if a Non-Collegiate student, of the Censor. Students who have been guilty of misconduct are sometimes sent away for the rest of the term. As it is the indispensable condition of obtaining a degree to have resided nine terms, the effect of this punishment may be to prolong by a term the period of undergraduateship. Residence for two-thirds of the term is accepted by the University as residence for the whole, and no more than this is necessary in the case of Non-Collegiate students, but the Colleges usually require residence for a much larger part of the Lent and Michaelmas Terms, except for some urgent reason ; and if a statute now under consideration be adopted, three-fourths will be substituted for two-thirds as the minimum to be accepted by the University.

So much with respect to residence. We now come to consider the student's relation to his College and to the University, or, if he be a Non-Collegiate student, instead of his relation to his College we have to consider his relation to the officers of the Board to which the University entrusts the supervision of such students. First, then, as to the College. There are seventeen Colleges at Cambridge, and they are very various in the advantages which they offer to their members. The selection of one College rather than another, or of a College rather than the position of a Non-Collegiate

¹ This rule is often relaxed in the case of those who have taken their first degree.

student, is often made with a view to other than purely educational advantages. It being assumed that with whatever body a student is connected he is equally likely to take a degree, both the student and his parents will often think comparatively little of the question, whether abler teachers are to be found in one College than another. The most studious think of the prizes offered in a College, and as far as they take account of the better or worse teaching to be obtained, they regard it chiefly as affecting their chance of gaining high University distinction; the less studious think of little beyond the opportunities held out of living agreeably in a congenial society.

⌈ The incidental advantages of life at the University are for a large proportion of the students quite equal in importance to the intellectual culture or the information to be secured there. The opportunity of mixing with a considerable society of young men of easy circumstances, at an age when intimacies are readily formed, in a state of freedom tempered by an easy and well-understood discipline, and by an obligation to do some intellectual work, is of high value to all who come to the University prepared to use it. ⌋ The arrangements of a College are particularly favourable to close intercourse of its members one with another. The smaller the College is, the more likely is it that all its members, or at least all who are of the same standing, will be acquainted with one another, if there be no marked disparity of previous

education to keep them apart. The diffident will thus find themselves introduced into a society ready formed for them; those of less culture, or force of mind or character, will benefit by the superior average of their neighbours; at any given time, something of a common tone, both social and moral, will prevail in the whole society of a moderate-sized College; and though this may change rapidly, it concerns those who are choosing a College for an average student, to get such information as they can at the time, as to the reputation of the undergraduate society of each College that is in question. This is not less important, and it is sometimes less easy, than it is to ascertain what reputation the Tutor has for stimulating the minds or guiding the conduct of his pupils. A person of greater force of character may be more independent of these considerations. If his choice is not determined, by personal connexion or the hope of prizes, in favour of a small College, such a student may prefer one of the larger, as offering either greater variety of companionship, or a greater number of persons whose tastes and circumstances are similar to his own. Members of different Colleges meet together in associations for religious, literary, social or merely athletic purposes; ties of school friendship, of home neighbourhood, or of family connexion, frequently unite members of different Colleges or different social sets in the University; and each new acquaintance may in its turn become an introduction to others; but all these causes together do less to

mark out the circle of acquaintance of any one average undergraduate than membership of one and the same College. But if it is important to consider what the society is into which a freshman is to be introduced, it must also be considered how far he is himself a person likely to make what is good in the society his own, and to withstand any temptation he may meet in it. What he gets from the society will very much depend on what he brings to it.

What has been said is but slightly affected by the difference between living within the walls of a College, and living as a College undergraduate in licensed lodgings. The interval is much larger which measures the difference between a member of a College and an ordinary Non-Collegiate student. The latter does not necessarily come into any close association with the men of his own class. He has no dinner in Hall, no compulsory lectures, no rule requiring attendance at daily religious worship, to connect him with all other Non-Collegiate students of the same standing. If he chooses to restrict his intercourse with them to the narrowest limits, he will sometimes meet them at the rooms or house of the officer who has the charge of them, at University lectures or examinations, and possibly at College lectures, but hardly elsewhere. The only duty prescribed to Non-Collegiate students, as distinguished from other undergraduates, is to call on their Censor on five days of the week at times indicated by him, and to sign their names in a book kept for the purpose. At the lectures which

they attend in Colleges or in the University, they are associated with members of Colleges. They have a common library and reading-room; cricket and football clubs have been for some time in operation; recently a lawn tennis club has attracted a large number of members; other voluntary associations may spring up among these students, as their number increases, to draw more closely together as members of one body those that wish to be thus united. At present the Union Debating Society, the Volunteer Corps, the University Football Club, and other University Associations and Clubs, are as likely to bring them into contact with members of Colleges, as to draw them nearer to one another. The wider the area covered by these organizations, the less likely they are to affect the condition of an otherwise friendless or diffident student. On the other hand, one who is desirous of society, and has ordinary social power, need not long be at a loss for opportunities of making sufficient acquaintance to render his Cambridge life pleasant, as well as wholesome. Hitherto he has been assumed to be of the usual age of undergraduates, and to be living alone in lodgings. If he is older than usual, or married, or living with relations in the town, it makes comparatively little difference to him, whether he is a member of a College or not.

The student who has selected a College will write to the Tutor of that College; one who wishes to be a Non-Collegiate student will write to the Censor of

Non-Collegiate students. The names of these officers will be found in the Cambridge Calendar; through them most of the business of the student with the College or the Board is conducted; to the College Tutor or the Censor the applicant for admission, and the newly arrived student or 'freshman,' should habitually apply for direction. At most of the Colleges the candidate for admission must produce a certificate¹ signed by a Cambridge M.A., attesting that he has been examined by him and found to be qualified, and he must at the same time pay a certain sum of Caution Money, (the amount of which will be found under the head of College Expenses,) and an Entrance Fee, which varies in the different Colleges, and will be found under the head of each. If he is unprovided with a certificate, he may be examined by the Tutor himself, or by some other of the officers of the College.

At some Colleges there is an examination held which every freshman must pass, before he can be matriculated; the subjects of this examination are given in the Tutor's circular sent to applicants for

¹ *Form of Certificate for admission at _____ College.*

"I hereby certify to the Master and fellows of _____ College, that I have known A. B. for — years, and have also examined him; and that I believe him to be, both as to learning and moral character, a fit person to be admitted of _____ College in the University of Cambridge.

(Signed) _____, M.A.
of _____ College,
Cambridge."

Date.

admission. At Trinity College, in filling up the vacancies, the priority of right is given to those who acquit themselves with credit in the examination for Scholarships; for the remaining places there is competitive examination in March or April, and; if need be, a supplementary one in October. The Tutors receive the names of applicants on the understanding that they will present themselves at some of these examinations; the purpose of such preliminary examinations is to exclude candidates who are not sufficiently advanced to profit by the most elementary courses of lectures delivered in the College. If the candidate be approved by the College Examiners, or his certificate be satisfactory, he is admitted, and his name is placed on the boards which are suspended in the College butteries.

For Non-Collegiate students there is generally no preliminary examination, either by officers of the Board, or by a Cambridge or Oxford M. A. ; but the Board requires satisfactory testimony as to the character of the applicant and his fitness to become a member of the University. A sum of £3 Caution Money is required, besides an Entrance Fee of £2.

A minor must be entered by authority of his guardian; if the candidate for admission have attained his majority references are usually expected.

Being thus made a member of a College, or a Non-Collegiate student, the freshman has to be formally enrolled as a member of the University. This enrolment, which is called Matriculation, does not, however, take place immediately on commenc-

ing residence, but on the day after the division, that is, the first day of the latter half of the term. The ceremony is performed in the Senate-House in the presence of the Registry, who receives at the time from the Tutor or the Censor a fee for each student. This fee is paid by a member of a College to the Tutor, either on entrance or in his first account; by a Non-Collegiate student it is paid to the Censor before the Matriculation.

The student's first business on arriving at Cambridge will be to procure himself rooms, if this has not been done for him already. The Tutor will inform him whether any sets of rooms within the College itself are vacant, and if not, which of the licensed houses in the town can admit him. The Censor in like manner will advise the Non-Collegiate student as to the choice of licensed lodgings, and in special cases may take steps to procure special licences. In no case should the student engage lodgings without the consent of the Tutor or Censor. At some of the Colleges room is made within the walls for the freshmen by expelling the questionists, i.e. undergraduates of the fourth year, into lodgings; but in the majority the freshmen are served last as being the last arrived, and in many cases have to wait more than one term for admittance. Some persons prefer lodgings to rooms in College. They have one practical advantage, viz. that in them, as in lodging-houses anywhere else, the servant can be summoned at any time, whereas in College rooms there are no bells, and

Mathematics. { Lucasian Professor of Mathematics.
Plumian Professor of Astronomy and
Experimental Philosophy.
Lowndean Professor of Astronomy and
Geometry.
Sadlerian Professor of Pure Mathe-
matics.

Moral Science. { Professor of Moral Theology or Casu-
istry.
Professor of Political Economy.

Natural Science. { Professor of Zoology and Comparative
Anatomy.
Professor of Botany.
Professor of Geology.
Professor of Mineralogy.
Professor of Chemistry.
Jacksonian Professor of Natural and
Experimental Philosophy.
Professor of Experimental Physics.
Professor of Mechanism.

Law. { Regius Professor of Laws.
Downing Professor of the Laws of
England.
Whewell Professor of International
Law.

History. Professor of Modern History.

Medicine { Regius Professor of Physic.
Professor of Anatomy.
Downing Professor of Medicine.

Lan- guages and Litera- ture.	{	Regius Professor of Greek.
		Professor of Latin.
		Regius Professor of Hebrew.
		Professor of Sanskrit.
		Adam's Professor of Arabic.
		Lord Almoner's Professor of Arabic.
		Professor of Anglo-Saxon.
		Disney Professor of Archæology.
		Slade Professor of Fine Art.

Thus a large number of subjects is constantly being treated by University Professors¹. The number of Professors has been considerably increased of late years, and the number of students in voluntary attendance at their lectures has been much more than proportionately increased.

2. The University holds examinations. If the student undergoes examinations in his own College, these are preparatory and subordinate to those to which he will be subjected by the University. There is one such examination which all students who cannot claim the exemptions mentioned below must pass before they can be admitted to a degree. This is the Previous Examination, better known, in the time-consecrated colloquial language of the University, as the Little-Go.

This examination may be described first, as it affects the average Poll man, secondly, as it affects the better prepared and more ambitious student.

¹ The Professor of Music examines only, and therefore is not mentioned above as lecturing.

First, then, in the case of the average candidate for a degree without special distinction: it is held in June and December of each year, and at each time consists of two parts. The First Part embraces one Gospel in the original Greek, one of the Latin Classics and one of the Greek (for example, two books of Ovid's *Fasti* and one book of Herodotus), with a paper of questions on Latin and Greek Grammar, principally with reference to the set subjects. In the Latin subject the examination is conducted partly *viva voce*, partly by printed papers; in all other subjects of this examination, and in the majority of the examinations necessary for a degree in Arts, printed questions alone are used. The Second Part embraces Paley's *Evidences*; Euclid, Books I., II., III., Definitions 1—10 of Book V., and Props. 1—19 and A of Book VI.; Arithmetic and Elementary Algebra (as far as easy Quadratic Equations of not more than two unknown quantities, and the elementary rules of Ratio, Proportion and Variation). A matriculated student in his first or any later term of residence may present himself for either part separately, or for both parts of the examination, at any time of its occurrence. The Gospel and the Classics fixed for June in any given year are also subjects of the following December examination. Though either part may be passed separately, both are required to be passed by every student before he can present himself as a candidate in any of the more advanced examinations necessary for a degree. Thus a Poll man who has commenced

residence in October should in general pass both parts in his first year; if he does not pass in June, he can present himself for examination in the same subjects the following December. If he then fail, he can go in again; but if his failure has occurred in the first part, or both parts, he will be required to read other classical subjects for the following June. At each examination in each part a fee has to be paid. The University imposes no penalty on a student who delays presenting himself as a candidate in this examination beyond the proper time; but the College, or the Non-Collegiate Students' Board, may refuse to retain a student who has failed to pass the examination when, in the opinion of the officers who have the supervision of him, he ought to have done so. It is necessary to observe that every person is required in writing his answers to conform to the rules of English Grammar, including Orthography; and no one is to be approved by the examiners who has failed to satisfy them in that respect.

Secondly, those who intend to graduate with honours in any Tripos must not only pass both the First and Second Parts of the examination, already described, but they must also satisfy the examiners in Additional Subjects, viz., (1) Algebra (including easy elementary problems, proofs of rules in Arithmetical and Geometrical Progression, and Logarithms), (2) Elementary Trigonometry, and (3) Elementary Mechanics. This additional examination may be passed either at the same time with the

ordinary Previous Examination or at any subsequent holding of the Previous Examination.

The Previous Examination being intended for all students alike, and being placed early in the course, is necessarily easy. The standard is low, and will be so ; but even advanced students must be careful to observe that though low, the standard must be reached in each subject, and that excellence in one will not be allowed to compensate for deficiency in another.

The certificate of the Oxford and Cambridge Schools Examination Board, if won at a School, and for the proper subjects, exempts a student from either part of the Previous Examination, or from that in the Additional Subjects ; and the same privileges are obtainable by means of the Senior Local and Higher Local Examinations. In these ways Students who are sufficiently well prepared may secure exemption from the whole of the Previous Examination before they enter the University, and may thus enjoy three years of uninterrupted study of the subjects in which they wish to graduate with honours. Selected Candidates for the Indian Civil Service are now exempted both from the Previous Examination and from the Examination in the Additional Subjects. Natives of India may, if they prefer it, substitute for the Greek Subjects one or more of the Sanskrit or Arabic Classics or a selected portion of such Classic or Classics equal in amount to the Greek subjects, and for the questions in Greek Grammar questions in Sanskrit or Arabic

Grammar, with reference principally to the set subjects in those languages¹.

The course of examination for the Medical Degree, as it differs widely from the others, is not treated in this Introduction. The great majority of the students graduate in Arts, and about half without Honours.

After passing the Previous Examination, the candidates for Honours and the candidates for the Ordinary Degree have a different course before them. The former class if they seek distinction in one Tripos only have only the examinations for that Tripos to pass, and they may devote the whole remaining time exclusively to the special subjects which they find themselves best able to master. They may, however, and not unfrequently do, endeavour to achieve distinction in more than one of these subjects. Those, on the other hand, who determine to try for the Ordinary Degree must submit to two more examinations. The plan

¹ The question is under the consideration of the Senate whether the substitution of other subjects for Greek or Latin shall be permitted to another class of Students. A Syndicate appointed to consider the matter has recommended that in the case of those Candidates for Honours who do not take up both the Classical Languages, French and German be accepted in place of one of them, and suggested that the relaxation might be effectually limited to Candidates for Honours if, while the substitution was allowed without restriction in the Previous Examination, both the Classical Languages continued to be obligatory in the General Examination.

adopted by the University for such students assumes that in most cases two years will be spent by them upon the studies which it regards as essential to general education, that is, Divinity, Classics, and Mathematics, and an additional year upon some special pursuit. During the second year, therefore, and generally at the end of it, there is a second examination, known as the General Examination for the Ordinary B. A. Degree, after the passing of which the student is intended to devote his undivided attention to some one special subject. It is held near the end of May and near the end of November in each year. The subjects are the Acts of the Apostles in the original Greek, one of the Greek Classics, one of the Latin Classics, Algebra (easy equations of a degree not higher than the second, involving not more than two unknown quantities, proofs of rules of Arithmetical and Geometrical Progression, and easy Elementary problems), Elementary Statics, Elementary Hydrostatics and Heat. As in the Previous Examination, students are required to attain a certain standard in each subject separately. Two additional papers are set, one containing passages for translation into Latin Prose, the other one or more subjects for an English Essay, and questions on some play of Shakespeare or some portion of the works of Milton; students are not required to do these papers, but by doing them they may gain a higher place in the list. This list is divided into four classes, the names in each class being

arranged alphabetically. A student who fails at one such examination may go in again six months later, each time paying a small fee. After passing the General Examination at the end of his second year, the student has a year to devote to one of six specified departments of study, and at the end of that time must present himself for a final examination, on passing which he becomes entitled to his Degree. These six departments are Theology, Moral Science, Law and History, Natural Science, Mechanism or Applied Science, and Music; each of these examinations except the last commences on the Friday next but two before the General Admission to the B.A. Degree in the Easter Term, and the list of those approved in each subject is published on or before the Thursday morning next before the same day. For those who are unable to attend one of these examinations in the Easter Term, or who fail to pass it, another examination in each subject is held in the Michaelmas Term, except in the case of music. The Special Examination in Music is held on the Thursday and Friday next but two before the General Admission to the B.A. Degree in the Easter Term, or if Ascension Day be that Thursday, in the week preceding, and the result is published on or before the Thursday morning before the same day. There is no second examination in the year for those who fail in this examination.

The Special Examination in Theology embraces the following subjects: (1) Selected books of the Old Testament in the English Version, (2) One of

the Four Gospels in the original Greek, (3) One or more of the epistles of the New Testament in the original Greek, (4) (a) The outlines of English Church History down to 1830. (b) A selected subject or period of English Church History. A paper is set in Hebrew, which the students are not required to do, but by doing which they may obtain a higher place in the List, as well as a mark of distinction affixed to their names.

The Special Examination in Moral Science will henceforth embrace (1) Logic, (2) Political Economy. In Logic, the students are to be examined in the following books: Jevons's *Elementary Lessons in Logic*, cc. 1—22, Fowler's *Inductive Logic*, Mill's *Logic*, Locke's *Essay on the Human Understanding*, Book III. and cc. 6, 7, 8, 12, 17 of Book IV. In Political Economy the books are Smith's *Wealth of Nations* (McCulloch's edition), Books III. and IV., Fawcett's *Manual of Political Economy*, Mill's *Political Economy*, Books I., II., III., and Cairnes's *Character and Method of Political Economy*. But between these two subjects the students are to make their election, and no student is examined in more than one of them.

In the Special Examination in Law and History, the student must choose either Law or History, and no student is examined in more than one of them. In law the subjects are Justinian's Institutes in the original Latin, Lord Mackenzie on Roman Law, or the Elements of Hindu and Mohammedan Law; any recent edition of Blackstone's

except cc. 6—18 of Book III. In History the students are examined in the *Outlines of English History from the Norman Conquest to the Accession of George IV*, in Hallam's *Constitutional History*, and in a period of European History, of which notice is given in the Easter Term of the preceding year.

The Subjects of the Special Examination in Natural Science (of which students are to select one, and no student is to be examined in more than one) are, (1) Chemistry, (2) Geology, (3) Botany, (4) Zoology, each as defined in extent by a Schedule authorized by the University. In each of these subjects at least three papers are set.

The Special Examination in Mechanism and Applied Science will henceforward be upon the practical application of the following subjects: Mechanics, including Statics, Dynamics and Hydrostatics; Heat; Mechanism, and the general principles of Machines; the Theory of Structures, the Strength of Materials; the Principles of Levelling and Surveying; Electricity and Magnetism. Five papers will be set, of which two (on Mechanics and Heat) will be obligatory on all Candidates, and one (and only one) of the other three must be chosen. Each Candidate will further have to prove his ability to write an accurate description or specification of an instrument, machine or model exhibited, and to make a working sketch to scale, as well as to give satisfactory practical proof of his skill in the use of the tools or instruments required in the alternative subject he chooses.

The Special Examination in Music for the Ordinary B.A. Degree is the same as the Preliminary Examination of Candidates for the Degree of Mus. Bac. The Subjects are (a) Acoustics (as defined by a Schedule) (b) Counterpoint in not more than three parts, and (c) Harmony in not more than four parts.

The list of the Special Examination in Theology, is divided into three classes, those of the other Special Examinations into two, the names in the first class being placed in order of merit, and those in the second alphabetically.

The Honour Examinations held annually for the degree in Arts are of course of a much severer character. Into these flock annually the ablest young men, who four or five years earlier were the admiration of their schoolfellows, and who during their University course have received all the instruction that the best Tutors, and all the stimulus that a competition well known to be severe, can give. As there can be here no reason or excuse for leniency, and the contest is one into which the cleverest youths in the country enter, it may safely be affirmed that even the lowest place in these Triposes is justly called an *honour*; and that he who wins it must have, at least *when* he wins it, a knowledge of the special subjects of examination considerably greater than is possessed by the majority of educated Englishman. Undoubtedly cramming will do much, and there are kinds and degrees of excellence which cannot be tested at all

by the method of examination ; but to take a good degree, as it is somewhat inaccurately called, remains a fair object of ambition, requiring either abilities above the average level, or a course of steady industry pursued through some years.

In saying this, we refer most of all to the Mathematical and Classical Honour Examinations, which have been long established, and are passed annually by a large number of students. The Honour Examinations in Moral and Natural Science, first held in 1851, are of a similar character, and demand similar qualifications ; they are held in high estimation, but do not rival in importance the older two. The Theological Honour Tripos has since the year 1874 given a title to a degree, and has attracted a considerable proportion of the students who would otherwise have been candidates for Honours in Moral Science. The Law Tripos (giving the option of a degree in Law or in Arts) has for several years attracted a rather large number of candidates, and that in History (separated from Law in 1875) gives promise of growing importance. In addition to these, two entirely new Honour Examinations have been open to students since 1875, viz. the Semitic Languages Tripos and the Indian Languages Tripos Examinations.

With a view to rendering it likely that a fair number of the best prepared students may compete for Honours in more than one class of subjects, considerable changes have been lately made in the

arrangements of several of the Tripos Examinations, both by dividing them into two or more parts and by altering the time of their occurrence and the standing required in Candidates. The new regulations will affect the examinations to be held after January 1882.

The Mathematical Honours Examination is widely celebrated, and has given to this University its character of the Mathematical University *par excellence*. It was instituted before the middle of the last century. It is now to be divided into three parts, of which the first and second will occur in June and the third in the January following. The results of the first will determine to whom are assigned Honours; according to the results of the first and second parts, taken together, the list of Wranglers, Senior Optimes and Junior Optimes will be drawn up, each of these three classes being arranged in order of merit. The third part will be treated as a separate examination, to which those only will be admitted who have been Wranglers in the list published in the preceding June; the list will be arranged in three divisions, each in alphabetical order. The Examination in Part I. is to be confined to the more elementary parts of Pure Mathematics and Natural Philosophy, the subjects to be treated without the use of the Differential Calculus and the methods of Analytical Geometry; that in Part II. will include more advanced Algebra and Trigonometry (Plane and Spherical); easier parts of Analytical Geometry (Plane and Solid);

Differential and Integral Calculus, with easier parts of Differential Equations; Statics; Hydrostatics; Dynamics of a Particle; easier parts of Rigid Dynamics and of Optics; Spherical Astronomy. In Part III. the Examination will embrace four groups of subjects, in which Pure Mathematics and Physics are not very unequally represented, and a student may be placed in the first division if he has shewn eminent proficiency in any one of these groups. In all the subjects of Examination there are to be introduced Examples and Questions, by way of illustration or explanation, arising directly out of the Propositions themselves; and in each part of the Examination one paper will be devoted to Problems.

The Classical Tripos is much less ancient. It was founded in 1824, and the first list contained only seventeen names, while the Mathematical Tripos of the same year contained sixty-six. It did not till 1858 confer a right to the degree. The average number of the names in the Classical Tripos lists for the last seven years is sixty-four, while in the Mathematical lists it is ninety-four. The Examination is now to be divided into two parts and to be more comprehensive than heretofore. Each of the two parts will occur in June, and no student will be examined in both parts in the same year. The first part will occupy six days and will include passages from English writers in Prose and Verse, to be turned into Latin Prose and Verse and Greek Prose and Verse respectively, and passages

for translation from Greek and Latin Authors, together with questions arising out of such passages ; and four additional short papers containing questions on Greek and Roman History (including Literature), in Greek and Roman Antiquities, and on Greek and Latin Grammar and Criticism. The questions in this part will not require a special and technical knowledge of the subjects included in the second part. For admission to the first part a candidate is required to have entered upon his fifth term at least, having previously kept four terms, and, unless he has previously obtained Honours in some other Tripos, nine complete terms must not have passed since his first term. The period allowed is increased by a year for those who have already won Honours in some other Tripos. The list of those to whom Honours are awarded is divided into three classes, each of which is to be in alphabetical order. The student who has thus won Honours before his eighth term of residence is not thereby entitled to be admitted to a degree even after the required residence has been completed ; but he can compete in other Tripos Examinations after a longer period in consideration of the Honours already gained, or, if he wishes to take the Ordinary B.A. Degree, he is excused the General Examination for that degree, and it only remains necessary to pass one of the Special Examinations for it. A student approved in the first part of the Classical Tripos Examination in his eighth or any later term of residence is entitled to the degree without further examination

when he has completed the necessary residence. But the best scholars, whether they have passed the first part in their second or third year, will commonly present themselves a year later for examination in the second part. In some cases that will be chosen as the means of obtaining the degree at the end of the student's course, but its main importance will belong to it as a test of more advanced scholarship than is at all requisite for a degree. There will be one section (*A*) obligatory on all candidates, containing passages for translation from English into Latin and Greek Prose, and passages from Latin and Greek authors for translation into English; but as the whole field of classical study is too large to be traversed even by the most able and diligent of those for whom examinations are instituted, specialization is encouraged by the provision of four other sections, of which each student is to offer one or two but not more than two. Sections *B* (Ancient Philosophy), *C* (History) and *D* (Archæology) will include each of them five papers of three hours, and in Section *E* (Language) four papers will be set, in addition to which any Candidate may send up, fourteen days before the examination begins, an English Essay on some subject comprised in the Section, and be examined *viva voce* upon it at the discretion of the Examiners. With the exception of the requirement that all candidates must satisfy the Examiners in Section *A*, the five Sections are to be treated alike, and the list (which is to be in three

alphabetically arranged classes) will depend on the united results of them all. Those who are placed in the first class will have attached to their names marks to shew (1) the subject or subjects for which the first class was given, and (2) the subjects, if any, in which they were specially distinguished.

It used to be the received opinion, and for a long time it was a just opinion, that Classical studies were little pursued or valued at Cambridge. That this has entirely ceased to be true is well known to all who understand the present condition of the Universities; but if any persons are still incredulous, let them observe how little shorter the Classical Honour list is than the Mathematical; let them take notice of the University Scholarships which are annually given for Classics, and contended for generally by seventy or eighty men, and of the numerous prizes constantly given for compositions of various kinds in Latin and Greek, rewards far outnumbering those offered for Mathematical proficiency; let them also remember that no precedence is now given to Mathematics in any one point; and they will perhaps be convinced of the fact that Classical Studies are now equally esteemed, and not much less practised at Cambridge than Mathematical. As a place of Classical scholarship and training, Cambridge is fully equal to Oxford. In other words, an average first-class man of Cambridge is fully as well skilled in the Latin and Greek languages, as an average first-class man of Oxford, and there is as great a number of good

scholars at Cambridge as at Oxford. This assertion is here made not as one which needs the support of evidence or argument, but as one which will be allowed at once by every well-informed Oxford man, and will only be questioned by those who have not watched changes in the Universities. And it is made not in any spirit of rivalry to the sister University, but as a fact of the greatest practical importance to all persons desirous to find a market for their classical acquirements, and to save schoolmasters from the mistake, at once serious and ludicrous, of sending their inferior scholars to Cambridge, as a place where they are likely to find little competition. It should most decidedly be understood, that persons who wish to avoid competition, whether in Classics or Mathematics, had better not come to Cambridge.

Of the Honour Examinations through which the degree in Arts may be obtained, the two examinations in the Natural and Moral Sciences next claim our attention. The Examination for the Natural Sciences Tripos will, in accordance with Regulations recently sanctioned, be divided into two parts, the requirements as to the standing of Candidates and the mode of classification in each part being the same for this as for the Classical Tripos. Moreover, Honours gained in its first and second parts will carry the same privileges in respect to a degree, or exemption from the General Examination, and in respect to the period after which a Student may compete in other Triposes, as

Honours gained in the corresponding parts of the Classical Tripos Examination. The first part will occupy five days, beginning on the Monday after the last Sunday but one in May; the second part will occupy five or more days, beginning on the Thursday after the last Sunday in May. In each part there will be not only printed papers, but, in some of the subjects, a practical examination, in writing, or *viva voce*, or both. The subjects included in the Examination are Chemistry, Physics, Mineralogy, Geology, Botany, Zoology and Comparative Anatomy, Human Anatomy, and Physiology, or defined parts of these. The names of those who pass either part of the Examination with credit will be placed in three classes, each class being arranged in alphabetical order. In arranging the Class List for the first part, aggregate knowledge will be taken into account; in arranging that for the second part, the Examiners are principally to regard proficiency in one or more of the following subjects: (1) Chemistry, (2) Physics, (3) Mineralogy, (4) Geology, (5) Botany, (6) Zoology and Comparative Anatomy, (7) Physiology, (8) Human Anatomy and Comparative Anatomy, (9) Human Anatomy and Physiology; in estimating proficiency in any one subject account is to be taken of so much of the other subjects as is cognate with it, and no one is to be placed in the first class for proficiency in any one subject unless he shew a competent knowledge of some other subject; the subject or subjects for knowledge of which a Can-

didate is placed in the first class will be signified in the published list ; and a distinguishing mark is to be placed opposite the names of those in the first class who have specially distinguished themselves either by general knowledge and ability, or by special proficiency in one or more of the subjects ; in each case the ground upon which the distinguishing mark is appended will be stated. In each part it is provided that no credit is to be given to a student in any subject of which he shews less than a competent knowledge.

The Honour Examination in Moral Science will hereafter be held in the week beginning on the last Sunday but one in May, and continue from Monday to Saturday, occupying from 9 to 12 in the morning, and from 1 to 4 in the afternoon of each day. Thus the whole number of papers to be set is twelve. The subjects of examination are Moral and Political Philosophy, Mental Philosophy, Logic and Political Economy. Lists of authors and books are published, which are intended to mark the general course which the examination is to take in the several subjects, and in each department of the examination some questions will be set of a special kind, having reference to the books on these lists ; but by other questions or theses proposed for essays, opportunity will be given to candidates to shew a more general knowledge of the same subjects, and of the works in which they have been treated with different views. The names of the students who pass the examination with credit are to be placed

according to merit in three classes, marks of distinction being affixed to the names of those who have shewn eminent proficiency in particular subjects. In order to induce men to make their studies rather deep than multifarious, it is announced that a student bringing up two subjects only may be admitted into the first class ; no credit is assigned to a student in any subject, even for the purpose of raising his aggregate, unless he has shewn a competent knowledge of that subject.

If a student fail to obtain Honours in the Mathematical, the Classical, the Moral Science, or the Natural Science Tripos, he falls back upon the Ordinary Degree. As this would otherwise involve the loss of a year, the examiners are empowered to declare such unsuccessful candidates to have acquitted themselves so as to deserve an Ordinary Degree, or to be excused from the General Examination required for the Ordinary Degree. In the latter case the necessary delay is reduced to six months.

The Law Tripos Examination will be held, according to new Regulations, in the week beginning on the last Sunday but one in May. Students who gain Honours in it are entitled to the degree of Bachelor of Arts or to that of Bachelor of Laws at their option. Papers are allotted to (1) General and Comparative Jurisprudence, (2) Passages for Translation, taken from the sources of Roman Law, (3) Questions on Roman Law and its History, (4) the English Law of Personal Property, (5) the English Law of Real Property, (6) English

Criminal Law, (7) the Legal and Constitutional History of England, (8) Public International Law, (9) Essays or Problems on the subjects of examination. A list of books is from time to time recommended to candidates for examination. The names of those who deserve Honours are arranged in three classes in order of merit; and unsuccessful candidates may be allowed the ordinary B.A. degree, or be excused the earlier of the two examinations for it, provided that no such student is to be allowed the Ordinary B.A. degree, unless he have satisfied the examiners in at least four papers.

The examination for the Historical Tripos, (Honours in which entitle to the B.A. degree,) will be held in the week beginning on the last Sunday in May. Papers are allotted to (1) English History; (2), (3), (4), special subjects, to be selected, generally speaking, from Ancient, Mediæval, and Modern History, requiring some knowledge of the chief original sources; one of these special subjects to be always taken from English History; (5) Principles of Political Philosophy and of General Jurisprudence, (6) Constitutional Law and Constitutional History, (7) Political Economy and Economic History, (8) Public International Law in connection with selected Treaties, (9) Subjects for Essays. Lists of books recommended may from time to time be published, books in other languages than English not being excluded. The names of the candidates who deserve Honours are arranged in three classes in order of merit; and unsuccessful

candidates for Honours may be allowed the Ordinary B.A. degree, or be excused the earlier of the two examinations for it.

Honours in the Theological Tripos entitle to admission to the B.A. degree. The examination for this Tripos is held in January. It lasts seven days, and embraces in the first three days general papers on the Old Testament and Greek New Testament, papers on Genesis in Hebrew, on the four Gospels with special reference to one selected Gospel, on the Acts, Epistles and Apocalypse, with special reference to selected portions, and on the Ecclesiastical History of the first six Centuries; in the last eight papers it includes the Book of Isaiah in Hebrew, selected books of the Hebrew Scriptures and the Septuagint, selected works of Greek and Latin Ecclesiastical writers and modern Theological writers, Liturgiology, the ancient Creeds, and the Confessions of the sixteenth Century with special reference to the Articles of the Church of England, and selected periods of Ecclesiastical History. Special attention is paid to the History of Doctrine during the periods of Ecclesiastical History (whether fixed or variable) included in the examination. In the papers on the Hebrew and Greek Scriptures questions of Criticism and Introduction relating to the different Scriptures and of Jewish History are included, as well as passages testing the candidate's knowledge of Hebrew and Greek. The paper on Creeds and Confessions contains questions on their history, text, and subject-matter, and that on Liturgiology, questions on the

text and subject-matter of the principal ancient Liturgies and on the history of Christian Worship, with special reference to the Book of Common Prayer. No student is classed who has not deserved Honours by his work in the first three days of the Examination; no credit is given to a student in any of the last eight papers unless he has shewn a competent knowledge in that paper. The list is arranged in three classes, the names in each class being in alphabetical order. Unsuccessful candidates for Honours may be allowed the Ordinary Degree, or be excused the earlier of the two examinations for it.

There remain two other Triposes, Honours in which are a title to the B.A. degree, viz., that for Semitic Languages and that for Indian Languages. Special facilities are given to students who have already obtained Honours in another Tripos, and wish to present themselves as candidates for either of these, a longer interval being allowed to intervene than between any two of the other Triposes. The examinations in the Semitic Languages and Indian Languages have been open to students since 1875, but few Candidates have as yet presented themselves. That for the Semitic Languages Tripos is held early in February. It extends over seven days. In Arabic, Hebrew (biblical and post-biblical), Syriac, and Biblical Chaldee, selected books and parts of books are proposed as special subjects of examination; but in the first three of these languages translation from unspecified books and composition are also included. Papers are also set

in the Comparative Grammar and the Literary History of the Semitic Languages with special reference to a list of books published from time to time. It is directed that the names of those who gain honours are to be placed in three classes, with alphabetical order in each class. No student is to be placed in the first class, who has not exhibited a competent knowledge of two of the three languages, Arabic, Hebrew, and Syriac, and also of the Comparative Grammar of the Semitic Languages. Unsuccessful candidates for Honours may be allowed the Ordinary Degree, or be excused the earlier of the two examinations for it.

The Indian Languages Tripos Examination begins on the day after that on which the Examination for the Semitic Languages Tripos ends. It extends over seven days. In Sanskrit, Persian, and Hindustani selected books and parts of books are proposed as special subjects; but in each language translation from unspecified books and composition are included; and, besides papers on Sanskrit, Persian, and Arabic Grammar, the Comparative Grammar of the Indo-European languages is the subject of a separate paper. Finally, there is a paper on the History of the Indian Languages, Literature and Philosophy. It is provided by the Regulations that the names of those who gain Honours are to be placed in three classes, those in each class being arranged alphabetically. Unsuccessful candidates for Honours may be allowed the Ordinary Degree, or may be excused the earlier of the two examinations for it.

It will be seen that a student may take the first part of the Classical or of the Natural Sciences Tripos examination at the end of his second year, and at the end of his third year either the later part of the same examination or the Honour examination for some other Tripos, and that success in the two Honour examinations, whether in similar or wholly different subjects, is necessary to entitle him to a degree ; or, if after passing thus early the first part of the Examination for one of these Triposes the student declines a second Tripos competition, he is excused the General Examination for the Ordinary B.A. Degree, and may pass one of the Special Examinations and obtain that degree. If the student wishes to graduate by means of a single examination for Honours, the standing at which he may compete is the same for the Classical (first part), the Natural Sciences (first part), the Moral Sciences, the Law, and the Historical Triposes : for all these he must be in his eighth term at least, having previously kept seven terms, but nine complete terms are not to have passed after his first term ; for the Mathematical Tripos (first and second parts) he must be in his eighth term at least, having previously kept seven terms, but not more than nine terms are to have passed after his first term ; for the Theological Tripos (when the list is published) and for the Semitic Languages and the Indian Languages Tripos Examinations the student must have entered on his ninth term at least, having previously kept eight

terms, and not more than ten terms must have passed since his first term unless he has gained Honours in some other Tripos. The standing of Candidates for Honours in more than one Tripos needs separate statement. For any of the Tripos Examinations in the Easter Term the period allowed is lengthened by a year for a student who has already obtained Honours in some other Tripos. Thus one who has gained Honours in any Tripos at the end of his third year may compete in any other Tripos Examination (undivided, or first part) which occurs at the end of his fourth year. The time allowed for the Theological Tripos is lengthened by two years for a student who has gained Honours in another Tripos. The periods allowed for the Semitic Languages and the Indian Languages Tripos Examinations vary according to the Triposes in which a place has already been won. One who has passed the earlier Tripos Examination at the most usual time, viz., the end of the third year, may, after gaining a place in the

Mathematical,	}	compete in the	{	first,
Moral Sciences,				second
Natural Sciences,				or third
Law,				
Historical,				
or Theological				
Tripos,	}			

succeeding Indian Languages or Semitic Languages Tripos. One who has at the end of his third year been placed in the Classical Tripos or passed one of the Special Examinations for the ordinary B.A.

degree may choose between the first and second succeeding Indian Languages or Semitic Languages Tripos. One who has at the earliest time passed the Indian Languages Tripos Examination may choose between the first and second succeeding Semitic Languages Tripos; and one who has at the earliest time passed the Semitic Languages Tripos Examination may take his choice between the next three Examinations for the Indian Languages Tripos. No one may compete earlier than the time allowed by the Regulations unless the Senate has passed a special Grace to enable him to do so; no one may compete later, unless (on account of illness or other urgent cause, duly certified), the Council of the Senate has given him permission to degrade. No one can enter the same Honour Examination twice. Candidates who, though they have not deserved Honours, are declared by the Examiners to have acquitted themselves so as to deserve an Ordinary Degree, or so as to deserve to be excused the General Examination for the B.A. degree, are entitled to be admitted to the B.A. degree without further examination or after passing one of the Special Examinations for the ordinary B.A. degree respectively. Candidates who from illness or other sufficient cause have been absent from a part of a Tripos Examination may according to the merit of their performances be declared to have deserved either Honours, or an Ordinary Degree, or exemption from the General Examination.

So much then of the examinations by which

Degrees in Arts may be obtained. But it is to be understood that many of the Honour Examinations are frequently undergone solely for honour, and by students who have already graduated. Most of the Colleges in filling up vacant Fellowships are principally guided in the choice of men by the distinctions they have won. This is in many cases a main inducement to graduate in the Triposes, especially those in Mathematics and Classics. The other Triposes win their way gradually to such recognition on the part of Colleges. Each has its importance also with persons outside the University. Many men who do not aim at a Fellowship are glad to win some distinction and a degree together, and therefore avail themselves of these Triposes in preference to the Poll examinations.

We have not yet exhausted the examinations held by the University. It adjudges every year a large number of Prizes and Scholarships, which have been founded by private munificence. Of University Scholarships and Exhibitions there are sixteen foundations, which are as follows :

Scholarships.

Classics.	{	Craven's ... six, value £80 per annum.		
		Battie's one, ,,	£30, £35	,,
		Browne's one, ,,	£21	,,
		Davies's one, ,,	£30	,,
		Pitt one, ,,	£45	,,
		Porson one, ,,	£70	,,
		Waddington one, ,,	£90	,,

Classics and Mathematics.	{	Bell's ... eight, value £57 per ann.
		Barnes one, „ £60 „
		Abbott two, „ £60 „

Hebrew. Tyrwhitt's, six, „ £30, £20.

Theology. Crosse's, three, „ £20.

International Law. Whewell's, eight, value £100, £50 per annum.

History (especially Ecclesiastical). Lightfoot's, three, value about £60 per annum.

Exhibitions.

Astronomy. Sheepshanks's, one, value £50 per ann.

Lumley's, five, „ £15 „

Of the Classical Scholarships one at least is adjudged every year, and as they are open to Undergraduates of every College, and of no College, and most of them to Undergraduates of every year, there is a great gathering of Classical men to this contest. Even those who have little hope of winning the prize may distinguish themselves so much as to attract notice, and the rest are glad to accustom themselves to examination, and to see how much they can do. The regulations affecting these Scholarships differ in minor points, for which the *Calendar* or the *Ordinationes* must be consulted. It is peculiar to the Porson Scholarship that no student is eligible for it who has resided more than five terms. The papers set do not differ widely from most of those hitherto set in the Classical Tripos; but it is commonly supposed that greater value is attached in the election to brilliancy and ele-

gance of scholarship than in the latter examination. The examination comes on at the end of January.

Of the Bell Scholarships two are annually adjudged. They are confined to students in their first year, and to the sons of clergymen, unless none such present themselves. In case of equality the poorer candidate is preferred. The Scholar binds himself to take the degree of B.A. in the usual manner. The examination commences on the Monday next after the second Sunday in Lent, and the election takes place on the Friday after Midlent Sunday.

For the Thomas Barnes Scholarship candidates must be Undergraduates in the first year, and must have been educated on the Foundation of Christ's Hospital, St Paul's School, or the Merchant Taylors' School in the City of London, and have come to the University from one of those Schools. In the absence of fit candidates with this qualification, other Undergraduates in their first year are to be admitted to the competition for that turn only. The Scholar binds himself to take the B.A. degree in the most regular manner.

Candidates for the Abbott Scholarships must be Undergraduates in their first year, and among them sons or orphans of Clergymen of the Church of England who stand in need of assistance to enable them to obtain the benefit of University Education are to be chosen, if there be any sufficiently deserving; if not, sons of Laymen, being Undergraduates who stand in need of assistance, may be

chosen. Other things being equal, candidates born in the West Riding of the County of York are to have the preference. The Examination commences on the Monday next after the Second Sunday in Lent. Neither of these Scholarships is tenable with a Bell Scholarship or with the Barnes Scholarship.

The Tyrwhitt Scholarships for Hebrew are open only to Graduates. The examination commences annually on the second Wednesday in May; persons intending to be candidates are to send in their names to the Vice-Chancellor on or before May 1st.

The Crosse Scholarships for Divinity are also confined to Graduates. The examination takes place annually after the division of the Michaelmas Term.

The Whewell Scholarships for International Law are open to all persons under twenty-five years of age. Every person elected is entitled, and, if not already a member of some College in Cambridge, is required, to become a member of Trinity College. Each Scholar must reside, unless he hold a diplomatic or consular appointment under the Crown, or have obtained express leave of non-residence from the Master and Seniors of Trinity College.

Candidates for the Lightfoot Scholarships must have resided at least one year at the University, must be still in residence or have taken their first degree, and must be under 25 years of age. The Examination consists of three parts: (a) a selected portion of History, studied, as far as possible, from original sources; (b) subjects for essays; (c) questions taken from or suggested by certain specified books.

For details the *Calendar* must be consulted. Besides the name of the successful candidate, the Examiners may make honourable mention of others.

The Sheepshanks Astronomical Exhibition binds the student who wins it to become a member of Trinity College. It is tenable for three years on condition of residence or permission obtained to be absent. It has been awarded nine times in twenty-one years. This exhibition, the two Smith's Prizes, and the Adams and Sedgwick Prizes are the only pecuniary rewards offered by the University for Science of any kind, but some of the Colleges award Scholarships and Fellowships for Science.

The Lumley Exhibitions are for Scholars of the Universities of Oxford and Cambridge, educated in the school founded by Elizabeth, Viscountess Lumley, at Thornton in the County of York, or in default of such, to others, not exceeding five in number, who should be nominated by the respective convocations of the said Universities.

If the competition in the Mathematical Honour Examination be still somewhat keener than in the Classical, on the other hand the Classical men have more opportunities of competing for University distinctions. We have already spoken of the University Scholarships for Classics; we now come to the prizes offered in the University for Latin and Greek Composition. These are the following:

The Chancellor's Classical Medals. Two gold medals, value fifteen guineas each, awarded each year to two students who are of about three years'

standing from the beginning of their residence in the University. The Regulations for these medals are now under consideration.

The Members' Latin Essay Prize, of thirty guineas, open annually for competition to all members of the University who are not of sufficient standing to be created Masters of Arts or Law, or who, being Students of Medicine, are of not more than seven years' standing from Matriculation. No Student who has gained this prize can be elected again to the same. The subject is given out at the end of the Lent Term, and the exercises are to be sent in to the Vice-Chancellor on or before the tenth day of November.

Sir W. Browne's Medal. Three gold medals, value five guineas each, awarded annually to three Undergraduates in the following manner: the first for the best Greek Ode in imitation of Sappho, the second for the best Latin Ode in imitation of Horace, the third for the best Greek and Latin Epigrams, the former after the manner of the *Anthologia*, the latter after the model of Martial. The subjects are given out at the end of the Michaelmas Term; the exercises are to be sent in before the 31st of March. The Greek Ode is not to exceed twenty-five, nor the Latin Ode thirty stanzas.

The Porson Prize. One or more Greek books, annually awarded for the best translation into Greek Verse, made by a resident Undergraduate, of a proposed passage in any standard English poet. The exercises, distinctly written and accentu-

ated, and accompanied by a literal Latin Prose version of the Greek, must be sent in to the Vice-Chancellor on or before March 31st. If the passage be from a tragedy, the metre of the translation must be the ordinary Iambic Trimeter or Trochaic Tetrameter, as used by the Greek Tragedians; if from a Comedy, the same metre as used by Aristophanes.

The Powis Medal. A gold medal, adjudged annually for the best poem not exceeding one hundred lines in Latin hexameter verse, written by an Undergraduate, who shall have resided on the day on which the exercises must be sent in, i.e. on the 31st of March, not less than two terms, or who shall at least be then in the course of his second year of residence.

These are for Classical Compositions. The Hare Prize is awarded for an English dissertation indeed, but for one on a subject connected with the Classics, i.e. on a subject taken from ancient Greek or Roman History, political or literary, or from the history of Greek or Roman Philosophy. The candidates are to be Graduates of not more than ten years' standing. The prize is adjudged once in four years. The subject is announced in the Easter Term, and the Essays are required to be sent in in the Easter Term succeeding. The successful candidate receives £60, and is required to print his essay.

For General Literature we have also the following :

The Harness Prize, adjudged once in three years to an Undergraduate, or Graduate of not more than three years' standing from his first degree, who shall compose the best English Essay upon some subject connected with Shakespearian literature. The subject is to be given out before the division of the Easter Term, and the exercises sent in on or before the 31st day of January next following. The prize is £45, and the winner is to print his essay.

The Le Bas Prize, awarded annually for an English Essay on a subject of General Literature, such subject to be occasionally chosen with reference to the history, institutions and probable destinies and prospects of the Anglo-Indian Empire. The candidates must be Graduates of the University who are not of more than three years' standing from their first degree. The subject is to be announced in the first week of June and the Essays to be sent in to the Vice-Chancellor before the end of the next ensuing Lent Term. The successful essay is to be printed at the expense of the author, who receives £60 as the value of the prize.

The Members' English Essay Prize, of the same value, and given under the same conditions as their Latin Essay Prize. The subject proposed for the English Essay must be one connected with British History or Literature.

For the encouragement of English Poetry we have the Chancellor's English Medal, a gold medal annually adjudged for the best English Ode or

Poem in heroic verse, composed by a resident Undergraduate. The exercises are not to exceed 200 lines, and are to be sent in to the Vice-Chancellor on or before the 31st of March. The compositions by which this Prize, the Porson Prize, the Browne Medals, and the Powis Medal have been won, are recited in the Senate-House by their respective authors on a day appointed for the purpose.

The Seatonian Prize, for the best English poem on a sacred subject, is only open to Masters of Arts.

We now pass to the prizes for Divinity.

The Carus Greek Testament Prizes, two in number, each of the value of £10, are open, the one to all Bachelors in Arts or Law who are not of sufficient standing to proceed to the degree of Master, and to students in Medicine who shall have passed the examinations for the degree of Bachelor in Medicine, and are not of more than seven years' standing from matriculation; the other to all Undergraduates or Bachelors-designate in Arts or Law, who are not of sufficient standing to be admitted by inauguration to the degree of Bachelor in Arts or Law. The examination for each of the Prizes takes place on the Thursday after the 8th of November in each year. Each examination is concluded in a single day, two papers being set with translation and questions on the criticism and interpretation of the Greek Testament. No successful candidate can compete a second time.

The Scholefield Prize is given each year for the best knowledge of the Greek Testament and

Septuagint shewn by any of the Bachelors who have gained a place in the first class of the Theological Tripos for that year. It is of the value of £15.

Dr Jeremie's Septuagint Prizes, two in number, are open for competition to all members of the University, who, having commenced residence, are not of more than three years' standing from their first degree. The examination is concluded in one day. Due notice is given of the day, which is always in the latter half of the Michaelmas Term. Special subjects for examination in each year are announced in the previous year, and are taken from the Old Testament in the Septuagint version, the Apocryphal books, the works of Philo and Josephus, and other Hellenistic writings. The examination is directed mainly, though not exclusively, to the selected books. It embraces translations and questions on the history, criticism and interpretation of the books, on the relation of the Septuagint version to the Hebrew original, and on the fragments of the other Greek versions. The Prizes are the yearly product of a sum of £1000.

The Hebrew Prize is given for the best knowledge of Hebrew. Immediately after the Theological Tripos Examination, a paper is set to those candidates for Honours in the Theological Tripos who may wish to go in for it, but marks obtained in it are not taken into account in determining the places in the Tripos. This paper contains grammatical questions in Hebrew, and pieces for point-

ing and for translation into Hebrew. The best competitor in this paper who has also gained a place in the first class in the Theological Tripos receives the Hebrew Prize, which is of the value of £15. Besides awarding the Prize, the Examiners also publish a list of those candidates who have passed satisfactorily in Hebrew.

The Evans Prize, being the proceeds of a capital sum of £300, is given annually to that student among the candidates for Honours in the Theological Tripos, who, being in the first class in the Tripos, is judged by the Examiners to stand first in the papers on Ecclesiastical History and the Greek and Latin Fathers.

The Norrisian Prize is adjudged once in five years for the best Prose English Essay on a sacred subject. The subject is announced on or before December 1, and the exercises must be sent in to the Vice-Chancellor on or before the 30th of April following. The candidates are Graduates of not more than thirteen years' standing from admission to their first degrees. The successful Essay is printed and published. The value of the prize is £60.

The Hulsean Prize, value nearly £80, is adjudged annually for the best English Dissertation on Christian Evidences written by a member of the University under the degree or standing of M.A. The subject is announced on New Year's Day, and the dissertations are to be sent in to the Vice-Chancellor, or to the Master of Trinity or St John's, in the ensuing October. The successful

essay is to be printed at the expense of the author, and he cannot compete again.

The Kaye Prize, value £60, is adjudged once in four years for the best English Dissertation upon some subject relating to ancient Ecclesiastical History, or to the Canon of Scripture, or important points of Biblical Criticism. The competition is open to Graduates of not more than ten years' standing from their first degree. The subject is announced in December, and the exercises must be sent in on or before the 31st of the following October. The successful essay is printed and published at the expense of the author.

The Maitland Prize is adjudged once in three years for the best Essay on some subject connected with Missions and the Propagation of the Gospel. It is open to Graduates of not more than ten years' standing from their first degrees. The subject is announced in the Michaelmas Term, and exercises must be sent in on or before the 10th day of the following November. The successful competitor receives £90, and pays the cost of printing, and distributes 150 copies according to the provisions of the Foundation.

The Burney Prize is awarded annually to a Graduate of the University who is not of more than three years' standing from admission to his first degree for the best Essay "on some moral or metaphysical subject, on the Existence, Nature, and Attributes of God, or on the Truth and Evidence of the Christian Religion." The successful candidate

receives about £105, and is required to print his essay.

This may be the place to mention the Winchester Reading Prizes, two in each year, value, £15 each, awarded to students who have resided not less than eight Terms, nor more than fourteen, and have fulfilled certain other conditions, for the best reading in public of passages of English books some of which are announced beforehand. The English Bible and the Liturgy are always included in the special list of books from which passages may be chosen.

For Mathematics we have:

The Smith's Prizes, value £23 each, which according to a scheme approved lately by the Senate are to be adjudged annually for the best two essays on a subject or subjects in pure Mathematics or Mathematical Physics. The Candidates are to be Bachelors of Arts of not more than one year's standing.

The Adams Prize, value about £160, is awarded every two years to the author of the best Essay on some subject of Pure Mathematics, Astronomy, or other branch of Natural Philosophy. It is open to all persons who have at any time been admitted to a degree in the University. The subject is announced in the Lent Term, and the Essays are required to be sent in on or before the 16th day of December of the year next following. The Prize is awarded before the division of the following Easter Term. The successful author prints his Essay at his own expense.

The Sedgwick Prize is given every third year for the best Essay on some subject in Geology or the kindred sciences. The course of proceedings is thus illustrated. In the Lent Term, 1880, the subject for the next Essay was given out; the exercises must be sent in to the Registry on or before October 1st, 1882, and the Prize is to be awarded in the Lent Term of 1883; at the same time the subject for the next succeeding Essay must be given out; and so on, every third year. Each candidate must be a Graduate of the University and have resided sixty days during the twelve months ending at the time the essay is sent in. The value of the prize is about £80.

For Political Economy, the Cobden Prize, of the value of £60, is offered triennially to be competed for by members of the University who are not of more than three years' standing from their first degree on the first day of the Easter Term of the Academical year in which the subject is announced.

A gold medal is given annually by the Chancellor, for Legal Studies. It is open to students who have passed the examinations necessary for the Bachelor's degree in Arts or Law, and are not of sufficient standing to become Masters, and to all students of Medicine of not more than seven years' standing from matriculation, who have passed the examinations for the degree of Bachelor of Medicine. This Medal cannot be won twice. Changes in the Regulations of the examination for this Medal have lately been proposed.

The Yorke Prize, of nearly £100, is to be given annually for an essay upon some subject relating to the "Law of Property, its Principles and History, in various Ages and Countries." Candidates are not to be of more than seven years' standing from their first degree. The subject for each Essay is to be announced before the end of November in each year, and the exercises to be sent in before the first of December of the year succeeding.

The reader has now before him a complete list of the rewards, pecuniary and tangible, which are bestowed by the University. He is not, however, to consider this synonymous with the rewards which may be obtained *at* the University. These are very far more numerous; and in fact the above list does not include at all those prizes which tempt the majority of the more ambitious men to Cambridge. The Scholarships and Fellowships which are bestowed by the separate Colleges offer the principal attraction, and no one of the prizes enumerated above, though the honour of winning them is great because the competition is generally large, is in pecuniary value at all equal to an ordinary Fellowship. We have also at length completed our account of the University as an *examining* body, for it will not be necessary here to speak of the Local Examinations instituted within these few years and extended so as to embrace men and women of mature age; these more advanced examinations are at least as important to a considerable

class of highly educated persons as the earlier instituted examinations have been proved to be to the many young persons of either sex who present themselves at either of two stages of their career, as under sixteen or as under eighteen years of age. By these Local Examinations in their three stages, by its participation in a Joint Board for examining Collegiate Schools and for giving Certificates on examination to boys of the usual age for leaving such schools, by holding examinations and giving certificates in State Medicine, and in the Art of Teaching, and, not least, by establishing connected courses of lectures and examinations in many populous towns, the University endeavours to extend to other parts of the kingdom that supervision which it exercises over the studies of its own members. It is to be observed that within its own limits the University does this work of testing the knowledge gained by its students, and setting up in the papers of its authorized examiners a standard of the knowledge required, far more completely than it fulfils the task of giving instruction. The work of instruction, which belonged originally to the University alone, has in recent times, though with little formal change, been practically shared with it by the Colleges, which have however been both disposed and obliged by interest to conform to the standards of knowledge set up by the University in its examinations. For some years past there has been a marked tendency to combination among Colleges in the

work of giving instruction, especially in the subjects of Honour examinations, for which each College separately might have insufficient classes. The large multiplication of University examinations has thus caused something approaching to a revival of University instruction. The number of Professors also has been increased; Assistants have been provided for several of them; Readers have been appointed by the University to give regular courses of lectures in Rabbinic and Talmudic literature, in Indian History and Geography, Laws of India, Telugu and Hindustani, and in other special subjects courses have been arranged under the authority of the University, the most recent, and not the least important, being on the History, Theory and Practice of Education. Moreover at least one College has appointed Prælectors to be maintained by itself while offering instruction in special subjects to members of the University at large. But the changes already made in the proportion of University to College teaching are less than those which it is proposed to make under the authority of the Parliamentary Commission now in operation. The establishment of six new Professors is contemplated, and it is proposed to add a much larger body of University Readers whose instruction will mainly be directed to the studies recognized in the various Honour Triposes. University recognition has already been given to many courses in each Term of Inter-Collegiate Lectures given by College Lecturers, and now it is proposed to erect those

who give such Lectures into a distinct order of University Lecturers, effectively controlled by the University, although principally maintained by the several Colleges. The details of the scheme may be largely modified, but there is no doubt that the provision made by the University for instruction will be made very much more complete than now in all or nearly all the lines of study marked out for candidates for Honours.

We proceed to speak of the University as conferring Degrees. And here it will be convenient to recapitulate the conditions upon which degrees are conferred. These are, first, to have resided a certain number of terms, in other words, to have had one's name on the boards of a College or on the register of Non-Collegiate students for such a time, and to have actually occupied, during more than two-thirds of each term for such a time, either rooms in a College, or authorized lodgings or houses in the town. Residence may be legally counted in the house of the student's parent without special permission. The number of terms required alike in Arts, Law, and Medicine is nine. Illness is a valid excuse for the non-performance of this condition, provided that a medical certificate be produced, signed by an M.D. or surgeon, expressly testifying that during a time specified, which must be long enough to have prevented the keeping of the term, the student could not with safety, on account of his health, return to Cambridge. It is however the practice not to

grant the remission of more terms than one, and that only after the actual commencement of residence. A similar discretion is exercised in remitting a term which a student has failed to keep owing to any other urgent cause, distinctly stated in a proper certificate. The next condition, also common to the three faculties, is that the student shall have passed the Previous Examination; an exception has been made lately in favour of Selected Candidates for the Indian Civil Service. Thirdly, for a degree in Arts, the student must either have passed one at least of the Honour Examinations, in Mathematics, in Classics, in the Moral Sciences, in the Natural Sciences, in Law, in History, in Theology, in the Semitic Languages, or in the Indian Languages; or he is required to have passed (1) the General Examination for the Ordinary Degree, and (2) one of the Special Examinations in Theology, Moral Science, Law and History, Natural Science, or Mechanism and Applied Science; for a degree in Law, he must pass the Honour Law Examination; for a degree in Medicine, three examinations; the first after passing the Previous Examination; the second after passing the first examination and completing two years of Medical Study; the third (now divided into two parts, which may be taken at the same time or separated by an interval) after passing the second examination and completing the course of Medical Study, which ordinarily requires five years for its completion. It is to be understood

however that of the five years no part is required to be passed in the University, but during any part of the time not passed in the University the student must have attended some School of Medicine recognized by the Board of Medical Studies which the University appoints. In the case of a student who obtains Honours in the Mathematical, Classical, Moral Sciences or Natural Sciences Tripos, four years of Medical Study suffice.

Proper days for admission to the degree of B.A. of those who have obtained Honours in the several Triposes and of those who have passed the examinations for the ordinary B.A. degree are fixed by Regulations which are now about to be revised. Those who are admitted at any congregation not fixed as proper for them by these Regulations pay a higher fee for the degree. The principal days of General admission to the B.A. Degree at present are the last Saturday in January, the first day of the Easter Term and the last Saturday of the Easter Term.

It is of little practical importance to the student to know the forms observed in conferring degrees. It is sufficient to say that a College Officer called the Prælector or Father of the College accompanies to the Senate House the candidates who belong to his College, and that he presents on behalf of each candidate a paper signed and sealed by the Master of the College, certifying that the candidate has resided the required number of terms, and another paper called the Supplicat, signed by

the Prælector himself on the part of the College, and containing a request that the degree may be granted. If the required nine terms have not been completed, the Supplicat must explain the reason why they have not, and be accompanied by certificates in proof of the statement. In the case of a Non-Collegiate Student, the Censor acts as Prælector, and the Chairman of the Non-Collegiate Students' Board takes the place of the Master of the College. The Supplicat is first submitted to the Council of the Senate, and then to the Senate itself, on which the candidate, after being led up by the Prælector and presented to the Vice-Chancellor, kneels down before him, and receives admission in a solemn form of words. This ceremony, however, only constitutes the candidate a Bachelor Designate; there remains the further ceremony of Inauguration, which takes place on the second day of the Easter Term. On this occasion the whole list of Bachelors Designate is read out, and they are then pronounced by the Senior Proctor to be full Bachelors. The amount of the fees required on taking the degree will be found under the head of University and College expenses.

The University maintains discipline among its students, i.e. among all its members *in statu pupillari*, or below the degree of Master in some faculty, by the means of Proctors. These officers are two in number, annually elected, Masters of Arts or Laws, of three years' standing at the least, or Bachelors of Divinity. It is part of their duty

to keep watch over the behaviour of the Students, and, to assist them in this, four Pro-proctors are annually appointed. They inflict fines on those Students whom they find abroad after dark without cap and gown, and for graver offences they can inflict graver penalties. They are attended by servants, who act as a kind of University Police. Every Undergraduate or Bachelor is bound to state to the Proctor or Pro-proctor, when called upon, his name and College, and if any other member of the Senate calls upon him to do the same, he is equally bound to do it. The penalties inflicted at Cambridge are fines, confinement within the lodging-house or within the walls of the College in the evening, rustication (dismissal from the University for one or more terms or part of a term, which of course entails a prolongation of the time of undergraduateship), and expulsion from the University.

There are some public institutions belonging to the University, into which the members of it have the privilege of admission. (1) The Library, in which Undergraduates appearing in their Academical dress are allowed to study, every day except Saturday, from 1 to 4 P.M., and from which resident Bachelors may obtain, through the Tutor or Censor, the loan of books to the number of five volumes at a time, while any one above the degree of Bachelor may borrow on his own account as many as ten volumes. Under exceptional circumstances Undergraduates may obtain access to the

Library for purposes of study during the earlier hours of the day on the recommendation of the College Tutor or Censor. (2) The Fitzwilliam Museum, into which the public generally are admitted on five days in each week, in summer from ten to six and in winter from ten to four, and all Members of the University, and friends accompanying them, daily during the same hours, (but into the Library connected with it, which is closed at four throughout the year, an Undergraduate can only be admitted on presenting a ticket signed by himself and countersigned by the Tutor or Censor). (3) The Observatory, open to all members of the University and their friends every day (except Sunday) between half-past twelve and half-past one. (4) The Geological Museum. (5) The Museum of Zoology and Comparative Anatomy. To these might be added several Museums less generally interesting or accessible. The Cavendish Physical Laboratory is furnished with admirable apparatus. The Botanic Garden is of great interest, and is well maintained at the cost of the University.

The relation of the Student to the University has now been described with sufficient clearness, perhaps, to render the articles which are to follow intelligible, and in such a manner as to fill any gaps they may leave. No attempt has been made to describe completely the constitution of the University; such a description would not only occupy much space and be difficult to understand, but it would also comprise much which is of no practical

importance to the Student. He is mainly concerned with his College, or if he be a non-Collegiate Student, with the Board to which the University entrusts the supervision of such Students; it is only at rare intervals that he comes in contact with the University itself, and it has been these points of contact only which we have endeavoured to indicate.

The Colleges are foundations established and endowed at different times by private munificence to secure a studious leisure to learned men and education to the young. They are of later date than the University itself, but have in process of time grown into an intimate union with it. For a considerable time it was impossible to be a student of the University without being a member of some College. This restriction was removed first by a statute permitting the establishment of Hostels, and again by a statute sanctioning and regulating the admission of Non-Collegiate Students. At present every Undergraduate is admitted either as a member of some College, or as a Non-Collegiate Student. The Colleges are seventeen in number, and differ from each other in countless details; the differences are described elsewhere; the present is the place for a description of whatever the student may require to know that is common to all the Colleges.

Every College has a Head, who is generally called Master, but sometimes Provost or President. The Student has few personal dealings with him.

He performs the ceremony of admission to scholarships and fellowships, and grave cases of misconduct are referred to him. Then come the body of Fellows, out of whom and by whom the Master is in most cases chosen. These are graduates of the University in receipt of annuities arising from the founder's bequest, and in possession of other privileges defined by statutes. The number of them is filled up by election, either by the body itself, or by the senior members of it, and generally from the graduates of the College; but in many of the smaller Colleges the practice has prevailed of taking graduates from without, when no worthy candidates offer themselves among their own students. In some Colleges the merits of the Candidates are tested by Examination, but in most the University Honours they have won are assumed to be a sufficient test. The value of the Fellowship, or annuity of a Fellow, is commonly between £200 and £300 a year. Conditions are attached to the holding of Fellowships which vary in the different Colleges and even in the different Fellowships. Restrictions imposed by the will of the different founders have been in most Colleges considerably relaxed within the last few years; religious tests have been removed, as far as they affected Lay Fellowships, and it is likely that College Statutes now under consideration, while effecting considerable changes in other respects, will be passed in forms leaving in general no difference in the conditions of tenure for Lay Fellows and for Fellows in Holy

Orders. Every College has the presentation to a certain number of livings, which it is the custom to offer to the Clerical Fellows in order of seniority; but in respect to these also changes may be expected to follow from the altered circumstances of the Colleges.

The Fellows with the Master constitute the governing body in most Colleges, though in some the government is in the hands of a section of this body. But the superintendent of the work of education in the College, and the authority to whom the students look up, is the Tutor. There is one or more of such officers in every College, and in addition to the duty of lecturing in the College, which he commonly shares with others, the Tutor's function is to maintain discipline and control over all within the College who are *in statu pupillari*. The Tutor is generally a Fellow, and to aid in the work of instruction other Fellows or other graduates are generally appointed with the title of Assistant Tutors or Lecturers, whose business it is to lecture and enforce attendance at their own lectures, and possibly in some degree to concern themselves with the general discipline of the Undergraduates. Besides holding authority, the Tutor is a guardian and adviser to the Undergraduates, and it is to him that the student should go in any difficulty that may arise.

Besides the Tutors, Deans are appointed from the number of the Fellows, who are charged to provide for the celebration of Divine Service daily in the College Chapel, and in some cases to enforce

the attendance of the students. In the more important Colleges the Deans also share with the Tutors the general supervision of the conduct of the students, especially in taking care that proper hours are observed for returning home at night.

The Undergraduates of a College may be divided into the classes of Scholars, Pensioners, Fellow-Commoners and Sizars. Noblemen may enter as a separate class, but few, if any, do so; and the class of Fellow-Commoners is no longer an important one.

The Scholars are students who receive an annuity from the College, and enjoy besides certain exemptions varying at the different Colleges. Scholarships are given in reward of merit, and it is the first ambition of a student to win this distinction. They may be won at some Colleges at the end of the first academic year, at others earlier or not so early. But the practice has within the last few years been introduced at many of the Colleges of offering a certain number of scholarships annually to be competed for by such as are not yet members of the University. These are called sometimes Minor Scholarships, sometimes Exhibitions, and are in these cases stepping-stones to the ordinary and more valuable scholarships of the College. The parent who is not in a condition to pay the whole expense of a College education for his son may thus be spared the anxiety which would otherwise be entailed on him, lest after the boy had begun his residence he should fail to gain a Scholarship. Scholarships are of various values, rising as

high as £70, £80, and even £100 per annum; but it is expected that in new College Statutes a limit will be set to the value of Scholarships to be offered to those who have not yet commenced residence.

The ordinary student of a College, who pays for everything, and enjoys no exemptions, is called a *Pensioner*, i.e. a boarder. *Sizarships* consist of certain emoluments and exemptions given to students in consideration of poverty as well as merit. Some of the Sizarships at Trinity and St John's are of considerable value. The Sizar must of course occupy a position of inferiority, as one avowedly poor in the company of richer men; but on the other hand, the very avowal of his poverty secures him from many temptations.

Men of fortune, when they are past the ordinary age of Undergraduates, and still more when they are married men, may find it convenient to enter themselves as Fellow-Commoners. In this character they pay higher fees, and, in return, are either admitted to associate on equal terms with the Fellows of the College, and to dine at their table in Hall, or are allowed more freedom than is allowed to the Pensioners who are of the ordinary age. But in such cases it should be a matter of consideration whether the position of a Non-Collegiate Student is not more suitable.

The duties commonly exacted by a College from its students are attendance at Chapel and at lectures, and at the dinner in the College Hall. In some Colleges the rules about attendance at Chapel

have been relaxed, or exceptions have been readily allowed, so that it is hardly possible to make a general statement of the amount of attendance required. The morning service on week-days begins commonly at half-past seven or eight o'clock, and so constitutes an ordeal by which the steadiness of a man's character and industry may be tested. The less regular and resolute prefer the evening service, the time of which varies considerably in different Colleges and at different seasons of the year. At some Colleges those who do not attend Chapel regularly will receive warnings from the Dean, and after repeated warnings will be in danger of punishment, such as being confined to gates, i.e. being deprived of the liberty of passing the College gates or the outer door of the lodgings during some hours before they are closed for the rest of the students. At most Colleges it is the duty of the Scholars in turn to read the lessons, two Scholars being appointed for each week.

5 Lectures lasting an hour each are delivered daily in most Colleges between the hours of 9 A.M. and 12. As the students are in various stages of advancement, and engaged in various studies, they are divided into a multitude of classes, and it is not to be supposed that each student is engaged at lecture during three hours every day. Perhaps two hours a day may be the average time exacted of a student by the lecturers. Nor is it to be imagined that by a lecture is meant a formal and continuous discourse delivered by the lecturer. 5

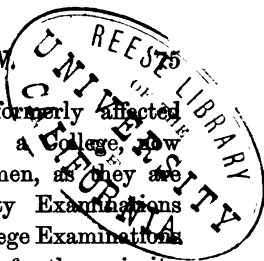
A Collège lecture at Cambridge is often much the same thing as a lesson at school, it being of course understood that the lectured are not subject to the restraints and discipline of schoolboys. If the subject be classical and the class not an advanced one, an author is read, the students translating in turns, while the lecturer interposes his comments as he sees fit. If it be mathematical, the students are often occupied during the whole hour in writing answers to written questions, or in solving problems. When the audience is large, the lecture often becomes more formal in character, and in connection with College Lectures on some subjects, such as Moral Sciences and History, frequent examination papers are set. }
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There is a public dinner in the hall of every College every day. In the largest Colleges there is a choice of hours offered, and in the Easter Term most Colleges adopt an earlier hour than usual for at least one daily dinner. A sufficient notice of the dinner will be found in the paper on College Expenses. Grace before meat is read commonly by the Scholars, and after meat by Scholars or by the senior Fellow present.

Such is the routine of College life, which goes on pretty uniformly throughout the Academic year. At the end of the May Term, i.e. at the close of the Academic year, have hitherto been held the examinations of the College, when prizes are given for proficiency in the different departments, and in some Colleges the Scholarships awarded. But

INTRODUCTION.

the May Examinations, which formerly affected all classes of undergraduates in a College, now scarcely affect any of the Poll men, as they are commonly undergoing University Examinations about the same time that these College Examinations are held, and the new Regulations for the majority of the Honour Triposes will further diminish their importance. In the meanwhile it is not to be supposed that the industrious student occupies all his hours of study in preparation for public lectures. It may often happen that this is the best thing he can do, but not always, and the spirit of competition is so strong, that the very best instruction is eagerly sought. It has therefore become worth the while of many distinguished men to become Private Tutors, and to receive pupils without reference to College connexion. It may chance that a College cannot command able lecturers, or the lecturers may want the art of communicating their knowledge, but the private tutor will not get pupils unless he be a man of recognized ability, nor keep them long unless he prove himself able to teach. It has therefore become with Honour men a common practice, and with Mathematical Honour men almost a universal practice, to employ a private tutor, and on the other hand it is very common for a man, after winning distinguished honours, to remain some years in residence, and take pupils. Accordingly the greater part of the reading man's time may be occupied in preparation, not for lectures, but for his private tutor, known also by



the slang name of "Coach." For some years past efforts have been made by the Colleges to obviate for a large number of their students the need of private tuition. By subdivision of classes where they were inconveniently large, and by combination of classes between several Colleges where they were inconveniently small, College instruction has been made much more efficient. A classical student should not generally need private tuition, if composition lectures as well as lectures on books be open to him in his own or associated Colleges. In some branches of Mathematics and in Moral Science and History attempts have been made to substitute series of examination papers set by the lecturers for the drill of a private tutor; and there is a general desire shewn to make use of any conspicuous ability for teaching in such a way as to give it the fullest effect. The increase and graduation of University instruction, now under consideration, will probably in some degree further lessen the demand for private tuition.

[But few men in Colleges study between 2 P.M. and 4 or 5 P.M. in winter, or in summer, where dinner is early, during the earlier hours of the evening. So much time is given by the most industrious to open-air exercise and recreation. The students are English youths, and a large proportion of men have grown up in the great public schools. Athletic sports accordingly are pursued with ardour.] In the boat-clubs of the several Colleges the science of rowing is studied

by as many men with as much ambition, and perhaps even with as much seriousness, as are shewn in the study of the subjects of the Honour Triposes¹. The Riflemen of Cambridge University have not been undistinguished. In the spring term, Lawn Tennis is everywhere prevalent, while Fenner's Ground and the separate Grounds of many College Clubs are alive with Cricket or Athletic Sports; the annual boat-race at Putney and the match at Lord's between the Universities are known to the public. [More intellectual recreations are also to be procured.] There is the Union Debating Club, with reading room and library attached, Musical Societies, especially a very powerful one known as the University Musical Society, Shakespeare Clubs, &c. &c. Hardly less numerous are the [organiza- tions for religious purposes.] Out of all these materials the reader must form as vivid a picture as he can of life at Cambridge.

¹ Boatmen may only let the lighter kind of boats to those who sign a statement that they can swim. The river above Cambridge is deep and dangerous, and the lower part is also dangerous when flooded. Students should assist in maintaining this necessary rule.



UNIVERSITY AND COLLEGE EXPENSES.

BEFORE entering upon this head it must be premised that it is only a small part of the expense of a University education which arises from fees or payments that are alike for whole classes of Students.

College arrangements are so framed as to admit of the Undergraduates living together, all something in the same way, and dining at a common table, but so as to allow a considerable discretion to each in fixing his own scale of expenditure and style of living. This is rendered necessary by the various circumstances of the several students, and any attempts to enforce economy or uniformity by strict sumptuary rules would be found as obnoxious to parents as to the students themselves. They would be at variance with the principle that, inasmuch as students come to the University to learn among other things to exercise responsibility and self

guidance, they must be dealt with on the supposition that they may safely be trusted with considerable independence.

The social usages of the place also leave each individual much at liberty to live as he chooses. Persons whose means and scale of expenditure are very different mix together on terms of perfect equality, and in the University more than almost anywhere else an individual passes for what he is worth in himself.

Owing to this variety in the style and expense of living, only a general idea can be given of what is necessary or usual, and parents must form their own estimate for the particular case from their knowledge of the tastes and disposition of their son, and of the style and comfort to which he has been used and to which he will consider himself entitled.

At the present time the general style of living in England is more luxurious than it has ever been, and children are brought up in habits which would formerly have been considered self-indulgent. These habits tend to make young people easy going in money matters, and the parents in the well to do classes are even more eager about their sons' comfort than the young men are themselves. If a parent comes to choose lodgings or to furnish College rooms he will often require more convenience than his son would have wanted.

Wilful extravagance is not a general failing of Undergraduates, the cases of it that occur are few

in proportion to the whole number of the students, but an extravagant man is always a conspicuous man, and thus a very small number of such cases gives an impression of the general expensiveness of the University which is not well founded.

As a general rule, the more a young man is on terms of confidence with his parents on money matters, and feels that he is dealt with as liberally as is fair with regard to the other claims on his friends, the less likely he is to spend more than he ought to do ; nevertheless, a well-meaning young man who has never had to manage for himself, and who while at home or at school has seldom had to deny himself any reasonable gratification, may find his bills at the end of a term much higher than he expects. He may not have carried in his mind an approximate account of his expenditure, and perhaps has not asked the price of what he has ordered. In such a case, it is unwise for a parent to shew such displeasure as is likely to deter his son from again confiding to him the full extent of his liabilities. The more kindly a well-disposed and sensible young man is treated, the more careful he will be, and the more anxious to shew that he can control his expenses. If no improvement take place, the fault must be laid, not to inexperience, but to helplessness and thoughtlessness, and it will be a question whether he have strength to change the style of living he has taken up, and whether a longer stay at the University is likely to be worth the

cost. (What Dr Arnold said of a public school is still more true of the Universities, viz. that a certain power of self-government is presupposed in all who come to them, and that those who have it not are out of place in such societies.

Besides those who drift into difficulties from thoughtlessness, which gradually grows into selfishness, there are some of a worse description. There is always a certain proportion of the young men of the country utterly unable to take care of themselves, and with whom incontinence of money amounts to positive disease; these, whether at the University or elsewhere, are likely to go to ruin. The Examinations and discipline in a great degree deter this class of persons from coming to the University, but a case of this kind occurs now and then. The College authorities will under such circumstances in general recommend immediate removal; and parents are advised to act on their representations before the evil has become very serious.

It must be understood in what follows that, when nothing is mentioned to the contrary, the expenses spoken of are those of a pensioner¹. There are but few Fellow-Commoners now in the University; these are mostly persons above the usual age or married men, and no estimate can be given of their *actual* expenses. The necessary expenses of a Fellow-Commoner for tuition,

¹ Pensioner means a person who *pays* (pendo) for the board and instruction he receives, while a *scholar* is assisted by the foundation.

commons (i.e. board), and College payments, exceed those of a Pensioner by a sum varying at different Colleges from £24 to £50 a year. Sizars generally get some assistance from the College endowments, the particulars of which may be learnt on application to the tutors; but in all cases a Sizar pays only £6 a year for his College tuition, whereas a Pensioner pays £18; hence the expenses of a Sizar will be at least £12 a year less than those of a Pensioner, and he also saves a small sum in the quarterly payments to the College and University.

Besides the annual expenditure of a student there is a certain *outlay* necessary in order to proceed to a Degree, the items of which are as follows;

CAUTION MONEY.

For carrying on any boarding establishment a sum has to be provided for working capital. Tradesmen's bills must be paid at the end of the current quarter and pupils' accounts will not usually be settled till three months later. Hence a capital at least equal to one fourth of the aggregate of the College bills for a year is required to carry on the concern; this must be provided either by embarking capital in the business or by taking payments in advance. The Colleges in their corporate capacity enter into no business liabilities with the pupils¹. The College Tutor is answerable for

¹ It is expected that under the Statutes now being framed (1880) the liabilities and Caution Money will be transferred to the Colleges.

his pupils' College bills to the Bursar ; he has to pay them before they have all been paid to him. To provide capital for this purpose and as a partial security against bad debts, the tutor receives "Caution Money" on the admission of a student : this is the same at all Colleges and is as follows :

	£
For Noblemen specially entered as such ¹ ...	50
Fellow-Commoners	25
Pensioners.....	15
Sizars.....	10

The Caution Money remains in the hands of the Tutor, and is not returned till a person takes his name off the boards, or becomes a Compounder, i.e. pays after his Degree a sum, usually £25, to the College to retain his name on the boards for life, free of all annual charges. At some Colleges persons can compound after the B.A., at others not till after the M.A. Degree.

ADMISSION FEES.

In addition to the Caution Money, Students, on admission, or coming into residence, usually have to make a payment to the College, which is not returned. The extreme amount is £5 ; it is more frequently £3, and at some Colleges there is no such charge.

¹ The classes of Noblemen as a distinct order, and of Fellow-Commoners, have nearly disappeared.

MATRICULATION FEES.

By Graces of the Senate, it has been decreed that the Matriculation fees paid to the Registry for the Common Chest should be as follows :

	£	s.	d.
Nobleman	15	10	0
Fellow-Commoner.....	10	10	0
Pensioner	5	0	0
Sizar	0	15	0
Non-Collegiate Student	0	15	0

If a Non-Collegiate Student migrate to a College he pays a fresh fee to the University.

These Fees are in some Colleges paid to the Tutor's account at his Banker's before the Matriculation takes place, in others they are charged in the College bill.

FEES AT THE TWO PARTS OF THE PREVIOUS
EXAMINATION, THE GENERAL AND SPECIAL
EXAMINATIONS.

Before admission to each part of the Previous Examination every Candidate is required to pay the sum of 25 shillings to the Common Chest ; such sum not to be returned to the Candidate in case of his not being approved by the Examiners. A person who fails has to pay a fresh fee when he presents himself again. The like sum of 25 shillings has to be paid by each Candidate presenting himself for the General Examination and £3 3s. by every one presenting himself for a *Special*

Examination that is, the final Examination in a particular branch of Study for a pass Degree. These fees, like that for Matriculation, are paid in different ways at different Colleges.

FEEES FOR DEGREES.

Each person who takes his Degree pays a fee to the University, a fee to the College, and a fee to a College officer called the Prælector, or Father of the College, who prepares the certificates, &c. of each Candidate, and presents him for his Degree. A complete list of the University fees for the different Degrees is given below. The College fees for the B.A. Degree vary from £1 12s. to £4 12s., and the fee to the Prælector is very generally £1 1s.

Persons proceeding to Degrees in Medicine must also attend lectures in that Faculty, for which fees have to be paid to the Professors. Particulars are given in the article on Medical Study and Degrees.

TABLE OF FEES.

Ordered by Grace of the Senate.

That in lieu of the Fees now payable to the Common Chest and to the Officers and Servants of the University by Candidates for degrees, the following fees only be paid to the Common Chest, viz.

	£	s.	d.
(a) On admission to the degree of B.A. or LL.B. at the time or times of general admission	7	0	0
(b) On admission to the degree of B.A. or LL.B. at any other time	10	10	0

(c)	On admission to the degree of M.A. or LL.M., whether the Candidate be a Fellow of a College or not	12	o	o
(d)	On admission to the degree of S.T.B. or M.B.....	8	o	o
(e)	On admission to the degree of M.B. when the Candidate is a Bachelor of Arts or Bachelor of Laws	2	o	o
(f)	On admission to the degree of Mus. B.	5	o	o
(g)	On admission to the degree of S.T.P. or LL.D.	20	o	o
(h)	On admission to the degree of M.D., whether the Candidate be a Bachelor of Medicine or a Master of Arts.....	10	o	o
	On admission to the degree of M.C., (Master in Surgery) with no previous degree.....	18	o	o
	When the Candidate is B.A. or M.B.	12	o	o
	When the Candidate is B.A. and M.B.	6	o	o
	When the Candidate is M.A. or M.D.	1	o	o
(i)	On admission to the degree of Mus. D., when the Candidate is Mus. B.	10	o	o
(k)	On admission to the degree of Mus. D., when the Candidate has no degree.....	15	o	o

FURNITURE, &c.

This item of course varies considerably. If a Student go into lodgings he has to provide house linen, crockery, glass, and some articles of hardware, as only actual furniture is found in the University lodging-houses.

Linen (sheets, pillow-cases, towels, and breakfast cloths) is generally brought from home by the Student; the cost of the other articles usually

ranges from £4 to £12. Sometimes the keepers of the lodging-houses, or in College the bedmakers, will supply a second-hand set of crockery, &c. at a cheap rate.

If the Student takes rooms in College he will have to buy furniture. A valuation of the articles left by the outgoing tenant will be given to him, and of these he may take what he likes. The amount will be usually charged in his first College bill. In some Colleges the fixtures, paint and paper are the property of the tenant, and are taken by the new comer at a valuation; this item is called *Income*. In some cases the fixtures, &c. are the property of the College, and there is no charge for *Income*.

When a Freshman has to furnish rooms in College it is desirable that he should be assisted by a parent or friend. The expenditure under this head of course varies very widely. It is usually the cheapest plan to take as much of the furniture left in the rooms as is serviceable; the lowest price at which a student can get into any rooms may be put at £15. In the majority of cases the expense ranges from £30 to £40, but to furnish large rooms handsomely will cost considerably more.

About half of this outlay may be expected to be recovered. The better the furniture the larger will be the proportion got back upon leaving.

The furniture left by a student, if rejected by the incoming tenant, is taken by the College appraiser, at a reduction of 2*s.* 6*d.* in the £1. The student is not credited with the value till the new tenant

has paid for it. For instance furniture left at Midsummer, and taken by a new tenant in October, will be charged to him in the Christmas bill, and if such bill be paid before Lady Day, the amount will be credited to its former owner at Lady Day.

The cost of a cap, gown, and surplice, also comes under the head of original outlay. It ranges from £3 to £5; the gowns at the different Colleges vary in pattern and price. A second-hand gown can often be got at half the above price.

SUMMARY OF OUTLAY.

The following is a summary of the outlay and payments requisite for obtaining a degree, independently of the annual expenditure :

	Lowest Possible cost ¹		Average		Higher estimate	
	£	s.	£	s.	£	s.
Admission Fee	0	0	3	0	5	0
Matriculation Fee.....	1	5	5	0	5	0
Previous Ex. Fee.....	2	10	2	10	2	10
General Examination Fee ...			1	5	1	5
Special Examination Fee ...			3	3	3	3
Degree Fee	7	0	7	0	7	0
<i>Outfit.</i>						
Cap, gown, and surplice	2	10	4	0	5	0
Outfit, Crockery, &c.	4	0	7	0	11	0
Furniture (half the cost as representing the ultimate loss)	10	0	16	0	25	0
	<u>26</u>	<u>15</u>	<u>48</u>	<u>18</u>	<u>64</u>	<u>18</u>

¹ This is the estimate for a sizar in College rooms proceeding in Honours.

The last item does not occur if the Student goes into Lodgings.

It is a good plan to pay *in cash* for the outfit of a Student in crockery, cap and gown, &c. Discount is then got, and open running accounts with tradesmen are avoided.

The friends of a Student will be further out of pocket during his career by the Caution Money of £15 which will remain in the hands of the Tutor as long as the Student's name is on the boards, and by the half of the cost of the furniture which is expected to be eventually recovered.

From the time when a Student's name is entered on the boards of the College, he is charged a small sum quarterly, which includes payments to the University Library, and other charges levied *per capita*. No charge is made for Tuition until the Student has come into residence, but if the name of a Student is placed on the boards of a College and is removed without his ever coming into residence, £2 has to be paid to the Tuition fund for the quarter in which his name was placed on the College boards, and 10s. for each succeeding quarter.

ANNUAL EXPENDITURE.

We now come to the Annual Expenditure, and first we shall consider the items which come into the College account.

TUITION.

The terminal payments for College Tuition of persons *in statu pupillari* are usually as follows :

	£	s.	d.
Nobleman	13	6	8
Fellow-Commoner	10	0	0
Pensioner	6	0	0
Sizar.....	2	0	0
Bachelor Fellow-Commoner ...	2	10	0
Bachelor of Arts	1	10	0

No payment for Tuition is required from non-resident Bachelors. In the case of a Bachelor attending special College Lectures, additional fees may be charged.

Undergraduates are not charged the Tuition fee if they do not reside at all during the Term. If they reside for a short time or come up for Examination they are charged a portion of the fee.

ROOM RENT.

This is the head under which there is most difference of expense in the different Colleges. In some Colleges it ranges from £4 to £10, in others from £12 to £30. At some Colleges the charge under the head of "Chambers" in the College account includes assessed taxes, water-rates, poor-

rates, &c., as well as the use of fixtures, &c. ; at others these items are charged separately. When particular information is required, it is best to apply to the College tutor.

LODGINGS.

The rent of lodgings varies from £5 to £16 a term, for the ordinary accommodation of two rooms. It is fixed by a University Inspector of Lodgings. The price depends to a great degree on situation ; rooms which are near those Colleges which have the most students in lodgings fetch the highest rents.

An Undergraduate cannot be obliged to take rooms for more than one term. If he intend to change he should give notice at the end of the term, and if possible two or three weeks sooner. Rooms cannot be taken or changed unless the College Tutor sign a written permission. A Freshman should ask the College Tutor to take rooms for him, and state the price he is prepared to give. The Rent is supposed to include attendance, but the servant expects a gratuity at the end of Term, varying from 5s. to £1. For the Regulations with respect to University Lodgings see the Compendium of University Rules given to each Student on admission to reside.

BOARD.

The daily charge for dinner in Hall is regulated by the price of meat. It is the cost price of $1\frac{1}{2}$ or 2 lbs. of meat, together with some additional payment for vegetables, pastry, and sometimes soup or fish, &c. Hence it varies both at different Colleges and at different times. It may be said to range from 1*s.* 6*d.* to 2*s.* 6*d.* a day, reckoning meat at 10*d.* per lb. What in some Colleges forms part of the regular dinner is elsewhere paid for as extra. It is convenient for those who desire to live as economically as they can, to have the *necessary* cost of the dinner as low as possible; but if the style and comfort of the dinner in Hall is not such as to satisfy the bulk of the Students, they will be more apt to dine elsewhere, which, besides being otherwise objectionable, entails additional expense.

Bread, butter, beer and cheese, are supplied from the College *butteries*; and in many cases, milk, tea and coffee ready made, soda water, &c. are to be had also. If an Undergraduate gives no express orders, his bedmaker, if he be in College, or the servant of his lodgings, will fetch him the usual allowance of bread, butter, and milk for breakfast and tea, this is called his "commons;" if he wish for more or less, he must give orders accordingly. He is not bound to have more than he wishes, and may, with permission, supply himself

from the town if he thinks fit. These items are comprised under the head "Steward" or "Butler" in the account. Extras in Hall are called "Sizings;" a "Sizing" seems to mean a "portion."

Each resident member of a College receives weekly two accounts, one containing his bill at the "butteries," and generally including the charge for coals and any fines¹ he may have incurred; the other comprising the charge for the dinner in Hall, for "sizings," and for any thing supplied to his rooms from the College kitchens. The object of these bills is to enable a person at once to check any incorrect charge. These bills should be kept and added up at the end of the quarter, the amount of them should tally with the items of the Cook and Butler (or Steward) in the College account; and it is desirable that any Student on finding an error or apparent overcharge should apply at once to the Butler with regard to the Steward's bill, and to the Cook, or Clerk of the Kitchen, with respect to the bill for Commons in Hall, Sizings, &c., and if not satisfied, should complain to the Steward.

There is also in most Colleges a head of account called variously *College payments*, *detriments*, or *allocations*. This goes to defray various miscellaneous establishment charges, such as lighting and

¹ Small fines are imposed for being out after the gates are shut, neglecting to return books to the College Library, and other breaches of College rules.

warming and keeping in order the public part of the College (i.e. the Chapel, Hall, Library and courts), printing, stationery, and the providing table-linen, plate, china and hardware for the use of the Students. This item is sometimes a daily, sometimes a quarterly charge, and sometimes it is distributed into various particular payments. It varies in amount from £3 to £5 in the year. Coals are supplied to Students in the College at a fair price. The lodging-house keepers furnish them at about 6*d.* a day; Students in lodgings may generally have them from the College, if they desire it.

ATTENDANCE.

Every set of rooms in College is under the care of a "bedmaker," who is generally a female, but sometimes a man and his wife are attached to each staircase. At the Colleges where there is only a female "bedmaker," the attendance of a man-servant (called a gyp) may be had if desired. The payment for bedmaker varies from £1 to £2 a term. A gyp usually receives £1 per term. Other charges, such as shoe-cleaning, 7*s.* per term, &c., require no explanation.

The following is a correct statement for a *low average* of the necessary expenses as contained in the College account, but it is not the *lowest possible*

sum, as in some Colleges Rooms may be had for £4 a year. It has been calculated at the prices of 1880, taking meat at $10\frac{1}{2}d.$ per lb., and butter, milk and coals at the prices of that date. A sizar would pay only £6 for tuition instead of £18 and something less than others for College payments, so that a sizar's College expenses may be as low as £60 per annum.

STUDENT'S NECESSARY COLLEGE EXPENSES,

(viz. TUITION, BOARD and WASHING).

<i>Annual.</i>	£.	s.	d.
Tuition.....	18	0	0
Rooms, Rent	10	0	0
Attendance, Assessed Taxes, &c.....	6	5	0
Coals	6	0	0
College Payments	5	7	4
<i>Cost of Living.</i>			
Bread, butter and Milk for breakfast and Tea, and Dinner at £1 2s. a week, for 26 weeks, making the full 3 Terms' residence in the year.....	27	6	0
Laundress	5	8	0
Amount	£78	6	4

In addition to this there is the cost of Groceries, which the Students find for themselves.

Besides these strictly necessary expenses there is one which frequently much augments the College bill, viz. the "Cook's bill." This includes extras in Hall, and all dishes furnished to an Under-

graduate in his rooms. Various restrictions are made at different Colleges as to its amount. And there are University Regulations intended to prevent Lodging House keepers from receiving Dinners or Suppers for the student lodging with them without the sanction of the College Tutor. (See the Compendium noticed, page 91.) Some Students spend little or nothing under this head, but £5 per term is not an uncommon amount, and in many cases it is very considerably more. Undergraduates have to send a written order for what they require. It is very desirable that they should order *exactly the quantity they require*, as a great deal of useless expense is incurred by the unnecessary quantities that are supplied. Game, &c. belonging to an Undergraduate can be given in to the College kitchen and an equivalent had when wanted. Some Undergraduates are in the habit of absenting themselves from their College Hall. This of course involves an additional expense and it is generally regarded by the tutor as a bad sign: it often goes along with undesirable pursuits or connections.

There is also in some Colleges a "Butler's extra bill" for liquors supplied to Undergraduates: the amount that can be brought into the College bill under this head is usually limited.

The general result of inquiries as to the amount of College bills comes to this. It is possible for a Student (a Pensioner) to keep his College bills down to £80 a year; but to do this he must not only be very careful to order nothing more from the

butteries or kitchens than he positively requires, and he must choose his lodgings or his rooms with strict regard to economy. The difference in the least possible cost of living at the different Colleges scarcely exceeds £10, for though the minimum rent of rooms in the several Colleges varies, yet a Student has the option of living in lodgings. Taking the prices of 1880 it may be expected that a year's College bills of a Student living as the majority do will come to about £105 a year; while, for persons who engage much in society and entertainments, the College bills will amount to £150 a year, exclusive of tradesmen's bills.

In addition to the College bill, the account of the Grocer and Bookseller must be considered necessities to a certain amount; they are sometimes put into the College bill.

We now come to personal expenses, which range between limits widely apart. Many amusements may be obtained at a very small cost, and a person who is debarred from all such does not reap the full advantages of the place. The subscription to the University Reading and Debating Club ("The Union") is £1 per term for 9 terms, with an entrance fee of £1; or a member of the University may become a Life Member of the Society by a payment on entrance of £7 10s. It has a good Library, and books can be taken out. The subscriptions to the College Boat-Clubs or Cricket-Clubs vary from 7s. 6d. to £1 per term, and there is generally an entrance fee. A person who can afford

£8 a term for pocket-money may join in most of the ordinary pursuits. It is very common for parents to give their sons £10 or £15 a term for this purpose, and many spend considerably more. Again, any amount of money may be spent in entertainments; £10 a year for wine, coffee, waiting, &c., in addition to the amount named under the Cook's bill, may be put down as a moderate expenditure. Game, &c. sent from home helps to keep down expense, see p. 96. It is best for the parents themselves to provide their sons with what wine they think proper.

There is a tendency to increase the number of College and University clubs for purposes of amusement. Freshmen who are invited to join them are warned not to involve themselves in such clubs until they find what time they have to dispose of. Many students find after a while that they have to subscribe to many clubs from which they reap no advantage. Freshmen are also warned not to give way to representations that every member of the College is bound to subscribe for the advantage of the rest.

In considering the expense of an amusement the time during which it can be enjoyed is a consideration. Cricket is only available for two months out of the Academical year. Boating is carried on during all three Terms, but this advantage is not gained by all those who wish to row. Those who do not shew promise of being good enough for a racing crew have a difficulty in getting an oar; and

as at present the lowest division of Boats is excluded from the races of the Easter Term, their crews have to engage in other amusements during that Term.

We shall not here touch on the more expensive pursuits, such as those connected with horses, as persons who wish their sons to have such amusements must not be scrupulous on the subject of expense. It may be mentioned however that any buying or selling of horses by Undergraduates is objectionable.

We now come to the important item of dress, and on this point it can only be said that a young man need spend no more on clothing at the University than he would elsewhere. But those who have a tendency to extravagance or vanity, usually shew it in this direction. Parents in the vacation can judge from their son's appearance as to his expenditure on this head, and can look to the tailor's and hosier's bills; if the amounts of these are not appended to the Tutor's account inquiry should be made about them.

It has been observed, that either from the increased wealth of the country or the greater attention paid to material comforts within the last few years, there has been a general increase in the scale of living in the upper and middle ranks of society. People think themselves entitled to greater indulgences, and to a larger share of enjoyment and amusement than they did a few years back. This change is sensible, in some degree, at the Univer-

Ch. 1. 8.
sities. What were formerly considered luxuries or indulgences, are coming to be regarded as necessities: more animal food is taken, which at the present prices materially increases the expense of living. The Colleges have generally yielded to the desire to put the dinner-hour later, and luncheon has, in consequence, become a more substantial meal. The cost of amusements has also increased. The great encouragement given in society generally to all kinds of games and athletic sports has led to a considerable expenditure under this head. Such pursuits are carried on in a more expensive style than they formerly were, a rage has sprung up for prizes in various kinds of sports, and the cost of prize cups and medals is a new item of most needless expense. The introduction of prizes of pecuniary value is exercising a pernicious effect. The moral qualities called out in athletic sports are valuable when the sports are followed for their own sake in friendly contests, but the whole spirit of the contention is deteriorated by the introduction of prizes having considerable money value. Subscriptions to the clubs are often imperfectly collected, and an unfair burden is thus thrown on those who pay punctually. These matters can be set right by the Undergraduates themselves, and it is to be hoped that some rising financier will turn his attention to the auditing of the accounts of the various Clubs. Freemasons' or Odd Fellows' Lodges, and all merely convivial societies should be avoided as causing a waste of money and time.

Friends visiting Cambridge cause serious disturbance and expense to Undergraduates. It was said by one of the Professors that our young men would be studious and simple enough in their habits if their parents would suffer them to be so. The gaieties lately introduced in the Easter Term have largely increased the expenditure of a considerable number of men. Visitors will stay a week or more, breakfasting, lunching, and supping—not only with their sons for whom they pay themselves—but with the whole circle of their sons' friends.

Again, persons do not always consider that to urge a Student to pay a guinea or more in order to go with their party to a public ball or concert, is doing him a doubtful service.

We now give three estimates, one of the lowest amount that can be reckoned upon, one of a fair average standard, and a third of the amount which a Student, whose friends do not wish him to be debarred from any reasonable enjoyment, on the ground of expense, may spend without running into extravagance. There are of course some who have been used to live in an expensive style, and who, with the sanction of their friends, continue at the University the style of living to which they have been accustomed. In such exceptional cases the rate of expenditure will no doubt considerably exceed the highest estimate given in the following table.

	Lowest estimate.	Average estimate.	Higher estimate.
	£	£	£
College bills	80	105	150
Grocers' and Booksellers' bills	12	15	20
Travelling expenses (to and from Cambridge)	6	6	10
Pocket Money for spending in the University	12	30	45
Tradesmen's bills for per- sonal expenses and enter- tainments	30	46	70
	<u>¹ 140</u>	<u>202</u>	<u>295</u>

The above calculations are made for 26 weeks, but as there is no charge for rent or College tuition during the Long Vacation residence (commonly 8 weeks) the cost for 34 weeks is only about £10 more than that for 26 weeks.

Nothing is here allowed for Private Tutors. The expense of such assistance is £8 or £10 for the Term. The question of how far it is necessary or advisable is discussed in the articles on the separate courses of study. Persons of good attainments can generally secure sufficient assistance from the College, in the way of Scholarships, to pay for the private tuition they require.

It must also be remarked that the estimate here given takes no account of the vacations; any expense for board or travelling or tuition in vacation time will be extra.

¹ For a Sizar this will be at least £12 less.

Permission to reside in College during the months of July and August is generally given to steady and industrious Students who are reading for Honours. The fee for private tuition during this period is £12.

The whole expense of residing in Cambridge during the vacation time may be put at from £1 to £1 5s. per week. Students are usually required to come into the College if they reside in lodgings, but no rent is charged for the vacation.

A very great saving in the expense of a University education is effected if the Student reside with his family in the town. The only College expenses then incurred are tuition, College payments and the Dinner in Hall¹, and the amount of the College bill for the year in such cases need not exceed £45; the other expenses are also very materially reduced.

The case of Non-Collegiate students will be the subject of a separate Article. Here the case of members of Colleges only is considered.

It may be mentioned that the maintenance of the Undergraduates is not made a source of profit to the College; all that is aimed at, in regulating College charges, is to make the establishment support itself without assistance from the endowments, which are disposed of among the members of the foundation and for specified objects, according to the directions of the Statutes.

¹ Sometimes a student under these circumstances is excused from dining in Hall.

Every tradesman in Cambridge is bound to send to the Tutor of each College, every quarter, a list of such bills due to him by the pupils as exceed £5. In some Colleges certain bills are paid by the Tutors, but a list of the amounts of all of them is in all cases sent to the parent, who should always apprise the Tutor, if he find any accounts to have been omitted. Discount should be obtained on tradesmen's bills paid at the end of the term, and Students should be warned to take and preserve receipts.

It is best for a Student to have a fixed allowance, that he may know what he has to spend, and regulate his style of living accordingly; but the parent should pay the College and other bills himself, by cheques drawn to order giving the balance from time to time to the Student.

Supposing that the allowance of a student were £240 per annum, or £80 per term, it might be paid him in the following manner. If he came up as a Freshman in October, then, besides the *outlay* being defrayed, he should have £15 given him for pocket money, &c. And as the first term is an expensive one in the way of books, entrance fees, clubs, &c. he might want £15 for bills at the end of the term. In January his College bill will go to his father, who should pay this, and hand to the Student the balance of the remaining £50 due to him for the term. Again, he should have at least £10 at the beginning of the Lent term, and a sum of money to pay bills at the end, and the balance after paying the College bill allowed him; similarly for the Easter Term.

It may be repeated that the secret of economical management is to pay ready money, and to specify precisely what is wanted when dishes are ordered, or plate or glass hired for any kind of entertainment. A Student, for instance, who orders "coffee for six" from the grocer's, receives a quantity of muffins and toast, which are seldom touched. All he really wanted was a pot of coffee.

Again, it should be fully understood that the Undergraduate is at liberty to have from the but-teries as little bread or butter or milk, &c. as he chooses, and that he may have none at all, and that he should not take more than his daily consumption requires from a notion that his bedmaker, or the people with whom he lodges, will expect him to do so. Bedmakers and lodging-house keepers are paid for their services on the supposition that they have no perquisites, and should a Student have any special reason for wishing to increase the remuneration of his attendants, he had better do so by giving a trifle in money ; he then knows exactly what he parts with.

All payments to the Tutor should be made to his account at his Banker's. The Bankers in Cambridge will give a memorandum in acknowledgement of payments made over the counter ; but as London Bankers will not in general do this, no such memorandum can be obtained where the payment is made through the London agents. When payments are made to the Tutor's account by a country Banker through the London agents care

should be taken that the *name of the student*, on whose behalf the payment is made, be transmitted to the Banker at Cambridge. Otherwise the name only of the country Bank appears in the Tutor's Pass books, and it is difficult to tell for whom the payment is made.

Bankers will, on payment of a small commission, cash a cheque on a London Banker presented by an Undergraduate, if it be endorsed by his College Tutor.

The friends of an Undergraduate sometimes open an account for him at a Cambridge bank, and with a sensible young man this is a convenient place enough—it teaches him also to manage his own affairs—but some are wholly unequal to this. Freshmen are sometimes mere children in money matters, and a cheque book seems to them an endless means of getting money at will—they spend in a Term what was meant to last for a year, and get into trouble by giving cheques for amounts greater than their balances.

If such an account be opened the parent should arrange to see the banker's book once a month. If this is too much trouble, he had better, unless his son is steady and business-like, only send him £10 or £20 from time to time.

COLLEGE DOMESTIC ECONOMY.

A short account of the internal domestic economy of a College may be useful.

The mode in which an Undergraduate pays for his board has been already explained, viz. that it is not by a fixed payment to the College including all charges, but that he has an account at the butteries and kitchens and with the College porter, which form items in the College bill; in these accounts he pays not only for board, &c. but for services as well.

A staff of servants is kept in the College establishment solely on account of the Undergraduates; some render personal services, as bedmakers, shoe-cleaners, &c., for which a specific sum is charged to each Student; while others, such as the cook, porter, and their assistants, render services no less essential to each resident, but not distinctly personal: they are kept for the general use of members of the College.

It is not always clearly seen that this last class of servants must be paid by those for whom and by reason of whose existence they have to be kept, that is to say, that the Undergraduates must contribute to the maintenance of the College staff in the proportion in which its cost is increased by the presence of Undergraduates in the College.

It is a mistake to suppose that this establishment should be maintained by what people call "the College," by which nothing can be meant except the landed property of the corporate body. The proceeds of this have been apportioned by the new statutes to particular purposes,—a large sum to the University for Professors, Readers, &c., and stipends to fellows, scholars and sizers, &c. No portion of this is applicable to the support or assistance of persons not on the foundation. Indiscriminate help is never given; it would be

giving charitable assistance to persons who would never think of receiving charity. Now, for the College to pay the whole establishment expenses which are caused by the presence of a body of undergraduates would be to give such indiscriminate help.

We will consider separately the Butteries, the Kitchens, and the various services which come under the head of "Porter."

THE BUTTERIES.

The College butler is not the personal servant of the Fellows of the College (the combination-room butler is their servant, and is paid by them): he keeps a staff of persons to serve out portions of provisions, to draw and carry beer, to keep the accounts of the undergraduates, which are supplied to them every week, to register the days they "keep" towards their University term, to pay to the University certain dues charged every quarter *per capita* on each of its members, and the like. As a matter of fact, the College usually does contribute—sometimes in the way of salary, sometimes in other ways—so as to pay amply for any advantages the body corporate derive from the buttery staff. In a College of 100 men the whole cost of the buttery would be near £300 per annum. The portion left for the undergraduates to pay would be about £225. If the College paid this there must be one fellowship the less. This gives £2 5s. for each undergraduate to pay, and it would have to be raised during the undergraduate period of annual residence, which averages 180 days. This gives exactly 3d. a day to be paid, somehow or other, by each man.

This sum may be raised by a daily or annual charge, and provisions sold at cost price. This is apparently a very simple plan, and it would save the authorities a great deal of trouble; but there are two heavy objections to it.

One is, that small quantities of an article cannot be

supplied exactly at cost price, because they come to awkward fractions of a penny—*e.g.* if butter is at 2½d. per lb., 1 oz. costs 1·3125 of a penny; it could not be charged less than 1½d.

Another objection is, that if a charge be made per head, an undergraduate who never sends for anything to the butteries excepting his daily bread and butter, would pay as much as one who is sending at all times for beer, coffee, muffins, soda water, &c., and giving ten times the trouble that the other does, both in the way of serving him and in making out his accounts (accounts are sent in weekly to the undergraduates). Direct taxation, then, if exclusively adopted would not be fair as between one student and another.

Hence, indirect taxation is usually employed either wholly or in part to raise the required funds for paying the servants. The tariff and the machinery of taxation vary very much; sometimes the tax is distributed over several items, sometimes laid chiefly on one or two. But the entire *quota* contributed by each undergraduate will be found not to vary much at different Colleges, when all heads of charges are considered together.

The old system was to let the butler and cook act as tradesmen, finding their own capital and serving out their provisions at a specified rate of profit. This had some advantages; it was said to make the College servants obliging and attentive, because they looked on those whom they supplied as customers, and it got rid of the difficulty of overlooking the household and preventing waste, a difficulty which gives rise to additional expense in the way of management. But under this plan it is very difficult to revise the scale of profit, and at every attempt to reduce expenses the reformer is met by a vested interest. Even under this plan students generally were at liberty to get their bread and butter from the town if they chose; by so doing they saved a little in price, but were at the inconvenience of having to buy a larger quantity of a commodity than they wanted for immediate use.

The plan which has been lately adopted in some cases is for the College to pay the butler a fixed salary, to find him assistants, coals, candles, and all that he requires, and to raise a fair proportion of this outlay by profits on the articles supplied. In this way the rate of profit can be adjusted from time to time; if the buttery account shews a profit, the price of bread, beer, or butter can be lowered at once, and the students may always be left at liberty to take just what they want, or to supply themselves from the town if they think fit, without any one having a right to complain.

It is clear that great trust must be placed in the butler under this system; not only does the working of the plan depend on his honesty and carefulness in preventing waste and breakage (the latter is usually very great in College), but he must be a good manager, hence it will be necessary to pay him a good salary, which must in part be paid out of the profits.

THE KITCHENS.

A College financier has to encounter two adverse circumstances arising out of the state of things he has to do with: these produce most effect in the kitchen department, and so may be touched on in this place.

First, there is this difficulty, one which meets the University economist at every turn, that owing to the Vacations a year's wages and a year's interest on capital have to be realized out of six months of business; *e.g.* in the case of the butteries we shewed that a resident undergraduate would have to pay 8*d.* a day for the services of the buttery staff; this sounds rather large; if he resided the whole year he would have to pay 1½*d.* a day, which would seem moderate enough.

The same cause operates in the price of lodgings. No set of licensed rooms can be got for less than £5 a term, and those at this price would be small. Now though this

may seem considerable for the period during which they are inhabited, yet £15 is not dear as a year's rent of two furnished rooms, and it is very rarely that they can be let in vacation time.

Moreover, the recurrence of vacations makes the Cambridge market a very variable one, and producers prefer sending their commodities to a place where they can command a sale all the year round; consequently those who supply Cambridge look to an extra profit to compensate them for the uncertainty.

From the action of these two causes prices in Cambridge are higher than in the neighbouring towns.

Secondly, not only does the population of Cambridge vary by 2000 persons between term and vacation time, but these 2000 persons are all of one class, and consume prime joints, together with poultry and other delicacies. In term time therefore the market is glutted with those parts of the carcase which the College kitchens will not take; these have to be sold at a lower price than they would be elsewhere, on account of the disproportion of the above-mentioned class to the whole population, and the butcher has to charge higher in consequence for the parts consumed in College, at any rate he has this plea ready to his hand, and will make the most of it. The consumption of poultry is sometimes so large, that the supply comes from a considerable distance, and prices are as high as in London.

The business of the kitchen department in College is two-fold—the dinner in Hall has to be provided and cooked, and the undergraduates are also supplied with dishes in their rooms under certain regulations.

The mode of providing the Hall-dinner varies a little at different Colleges, but is generally as follows.

Some functionary, as the Head porter or Hall butler or caterer, receives daily a statement of the number of students "in commons," he then orders from the butcher the proper quantity of meat at the fixed rate, usually $1\frac{1}{2}$ lbs. per head, he, or he and the cook together, select the particular joints and

distribute them to the several tables according to the numbers, sometimes the remains of the meat go to this Head porter or other functionary, who often provides the waiting from the proceeds, and sometimes it remains the property of the College, and reappears cold, or in made dishes. The object of this arrangement is to provide a security for the proper quantity of meat being placed on the table; as the functionary who orders it has the remains, it is his interest to see that the quality is of the best description, and that the cook sends all that he ordered into Hall.

The arrangements with regard to any additions to the dinner in the way of soup, fish or pastry, vary exceedingly: sometimes the meat and vegetables alone form the regular dinner, and those who like may obtain something more called 'sizings¹,' or else another course is provided regularly, and from 4*d.* to 6*d.* charged for it—this may be soup or fish, or sweets and pastry, but rarely if ever *both* in addition to the meat.

The daily cost of the dinner then stands thus:—

Cost price of 1½ lbs. of meat (sometimes 1¾ lbs.)

For vegetables.....2*d.* or 2½*d.*

To Cook for firing and payment of wages1*d.* or 1½*d.*

Fish or Poultry4*d.* to 6*d.*

Hence it is seen that the cost of an undergraduate's maintenance is much increased by a rise in the price of meat.

Persons who judge by the consumption of a family may think 1½ lbs. of meat a large allowance, but a leg of mutton weighing 9 lbs. and a sirloin of beef weighing 12 lbs. is not an excessive dinner for 14 young men; some waste arises from the bad carving of the undergraduates themselves, and the plan of having servants to carve either in the Hall or in the kitchen has been tried, but this requires an increase of staff, which causes further expense, otherwise delay is occasioned, which is a source of complaint.

¹ The word seems to mean portions at a fixed price; we hear of certain officers "fixing the *assize* of bread."

The private business of the Cook consists in supplying, subject to some sumptuary rules, dishes to undergraduates of the College in their rooms, the prices are regulated by the Steward; they should be fixed so as to yield a profit which, together with the profit from the Hall, should pay so much of the expense of the kitchen staff as arises from the presence of undergraduates.

The old system of allowing the Cook to be a tradesman on his own account, as far as regards members of the College, is still very generally retained, owing to the great difficulty which attends the supervision of the kitchen department.

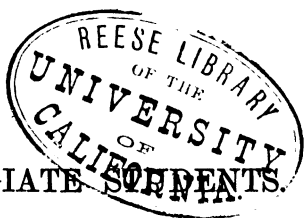
In some Colleges the Cook is allowed to supply members of other Colleges than his own—in which case he becomes an ordinary tradesman, doing a cook's business from the College kitchens. This system is open to objection.

In some cases the Cook acts merely as an agent for the College, and receives a fixed salary. The financial success of this plan depends entirely on the goodness of the management; a considerable sum may be lost even in a term by negligence and wastefulness, but with regard to discipline and the prevention of extravagance, it is more advantageous for the Cook to be the servant of the College, than a tradesman whose interest lies in obtaining a large amount of undergraduate custom.

PORTER.

The duties of the College Porter vary in different Colleges; in all cases he has to keep the gate, he has to be ready to be called up at any time of the night in case of illness or any emergency, to see to the carrying of luggage, and to fetch and carry the letters to and from the post office, and to see to the lighting of the courts and staircases. Many other functions connected with the work of discipline or the College, such as the marking in Lectures and Hall, the keeping an account of the exits and redits so as to determine the number of days that an undergraduate has kept, the care

of the courts, &c., and the superintendence of the waiting in Hall generally devolve on the porter or his assistants, but in the larger Colleges some of these offices are performed by the clerks of the buttery or other servants. The funds for paying the porter and his assistants, so far as they are derived from the undergraduates, are raised by a payment varying from 5s. to 10s. per term, and a charge for each letter delivered by the porter or the College messenger. The work particularly answering to the latter payment is the fetching and carrying of the letters on the arrival and for the departure of the mails, that is five times a day.



NON-COLLEGIATE STUDENTS.

To the general information as to the position of Non-Collegiate Students which is given in the Introduction to the present work but little needs to be added. It may be repeated that such a student is in the same relation to the University as if he were a member of a College, but, instead of being in connection with a College, is under the supervision of a Board elected by the Senate of the University. The Censor appointed by this Board is the officer through whom all communications are addressed to it; to him everyone should apply for information who entertains the thought of becoming a Non-Collegiate Student; the student already admitted should consult him as to choice of lodgings, call on him on his arrival in Cambridge, and habitually apply to him for direction as to his studies, the opportunities of instruction open to him, the requirements of the University as to residence, examinations and discipline, and any other points of conduct on which he wishes for advice. To the Censor returns are made by the lodging-house keepers of the hours at which Non-Collegiate Students return home at night; and he fulfils the functions of Prælector in sending in the names of students as candidates in their several exami-

nations, and in presenting for degrees those who have satisfied the requirements of the University.

The candidate for admission must produce a testimonial to character, with a reference to two respectable persons, and, if he is a minor, the written consent of his parent or guardian to his residing at the University as a Non-Collegiate Student. He is not required to pass any examination on entrance or matriculation, and the one question concerning sufficiency of preparation on which he should satisfy himself beforehand, is, whether he has a reasonable prospect of being ready to pass at the suitable times the University examinations in which he intends to be a candidate. In the case of one who does not aim at distinction, it need only be asked, whether his attainments and ability are such that he may hope to pass the Previous Examination in due time.

In the case of a very young student applying for admission the Board must be satisfied that he will be under special supervision in the house where he lives; in such cases the regulations affecting licensed lodging-houses are insufficient. Some exceptionally young students have been admitted on the understanding that they should reside with persons of approved position and character; for others provision has been made by the institution of Cavendish College¹, the arrangements of which are suited to their age, and which, though

¹ In this College all cost, of board and residence, University fees (except the final degree fee) and all ordinary tuition are

not in a formal sense a College of the University, enables its students to keep terms and to graduate in the University by entering them under the Non-Collegiate Students Board. Students not less than seventeen or eighteen years may live in lodgings licensed by the University authorities. The choice of a house at some distance from the centre of the town sometimes enables a Non-Collegiate Student to live in comfortable lodgings at a much cheaper rate than prevails amongst lodgings in the immediate neighbourhood of the Colleges. In many of the latter also the habit of receiving students who dine in the College Halls, and obtain supplies from the College Kitchens, has made it difficult to arrange for the service needed by those who habitually dine in their own rooms. But some students will always in their choice of rooms prefer convenience of situation to cheapness or comfort at a greater distance. In estimating the cost of rooms it should be considered (1) how many weeks are included in the term for which they are to be engaged, and (2) whether the price charged includes cooking, shoe-cleaning, and all attendance (except washing), and the use of the necessary house-linen, china, glass, and plate, these not being usually provided by lodging-house keepers for the sums named in their licences.

covered by an inclusive annual charge of eighty guineas for thirty-six weeks, including a short term of residence in the Long Vacation. To each student a small separate room is assigned, while large common rooms are shared by all. All applications should be made to the Warden.

The Non-Collegiate Student is subject to the usual discipline of the University as to hours at night, and the wearing of academical dress. He is under the supervision of the Proctors, as well as of the Censor of the body to which he belongs, or of a deputy Censor formally appointed. Partly for the sake of discipline, partly to give evidence of being in residence, he is required to call at the Censor's office, and sign his name in a book kept for that purpose, on five days in each week.

Some of the Colleges have opened their lectures to Non-Collegiate Students, on payment of very moderate fees. The Professors' lectures are open to them equally with members of Colleges; so also are University Scholarships and Prizes. Colleges usually require previous membership as a condition of election to their foundation Scholarships, and the exceptions have lately been still rarer than before; still during the year 1879 Non-Collegiate Students have gained Scholarships by open competition in special subjects at Trinity and Downing Colleges. An undergraduate who has kept some terms as a Non-Collegiate Student and has been allowed to migrate, may count the terms already kept, and may usually compete for any Scholarship or other emoluments on an equal footing with those of the same standing who commenced their residence in the University as members of the College. Some School Exhibitions, the Exhibitions of several of the London Companies, and some other benefactions, may be enjoyed by Non-Collegiate Students,

but in other cases a restriction to members of Colleges is at present maintained.

It is evident that this mode of residence will suit best those who, while they are of studious and steady habits, derive least benefit from the special institutions of the Colleges. Men of mature age are often disinclined or unable to enter fully into the companionship of youths almost fresh from school. Married men, or students living with their parents or other relatives or friends, do not need the stricter restraints, or the common dinner of the College. The associations of the College Chapel may be, and in some degree have been, replaced by a voluntary participation in a similar course of services held in one of the parish churches, specially intended for Non-Collegiate Students. Lectures have been offered by Colleges, as above mentioned, to such as wished to attend, but imposed as a matter of obligation upon none. Scholarships and other prizes, which to many students are a main reason for entering the Colleges, are felt by others to be beyond their reach, at least at the beginning of their residence ; and not a few of these will justly regard the expenses, which are hardly avoidable in the social life of a College, as a sufficient reason for not entering upon it without the certainty of some pecuniary aid. Such will either adopt the position of Non-Collegiate Students as suitable for the whole period of their Undergraduate life, or will look upon it as a safe and fitting introduction to a later competition for College emoluments. Medical Students and others occupied with special subjects, as

well as persons imperfectly prepared to enter on some of the ordinary University studies, may find little or no help afforded them by College Lectures; these may find the payments necessary in a College to be unsuitable for them, and may seek in the position of Non-Collegiate Students the opportunity of providing themselves with the instruction which they need, and paying for no other. It is not to be supposed that the Non-Collegiate Student is one specially distinguished as being in receipt of eleemosynary aid. His necessary expenditure is less than that of the average member of a College, but this is mainly because he requires less, or allows himself less, of the comforts which money buys. He foregoes the obvious advantages of common meals and other institutions publicly arranged to suit those who adopt a common standard of living, in order that he may be free to provide exactly for his own wants, without reference to the frugality or luxury of others. In general, the unmarried Non-Collegiate Student spends considerably less than the unmarried undergraduate of a College; but he is free to spend more if he has more to spend. It is desirable therefore that parents, in arranging for the University life of their sons, should consider whether they are likely to be the better for the greater freedom accorded to Non-Collegiate Students.

In the case of those who have commenced their residence at a College, and wish afterwards to become Non-Collegiate Students, the University requires a statement from the Head of the

College, that the student's conduct throughout has been satisfactory, and that he considers him a fit person to reside at the University as a Non-Collegiate Student. One class of undergraduates who might readily obtain this certificate are nevertheless not welcomed by the Non-Collegiate Students Board. The practice of the Board has always been to refuse the applications for admission of members of Colleges who have repeatedly failed to pass the prescribed University Examinations.

No attempt has been made to ascertain the *average* annual expenditure of all the Non-Collegiate Students at any one time; but exact statements voluntarily made by a number of students during the first few years of the operation of the scheme, establish the fact that the necessary expenditure in Cambridge of a student in Arts who is willing to live frugally, and who keeps only the minimum residence in each term, can be kept under £50 per annum on an average of the three years. This sum may be regarded as the *minimum*. It may be thus accounted for:

	£	s.	d.
(1) For three years' expenses in lodgings, board, washing, coals, use of linen, gaslight and all attendance (about seventy weeks)	100	0	0
(2) For three years' payments to the Board, and Capitation Tax to the University	16	1	0
(3) For College lectures, say	12	12	0
(4) Special payments for Caution Money, Entrance Fee, Matriculation, Examinations, and Degree	19	13	0
(5) Cap and gown, say	1	14	0
	<hr/> £150 0 0		

In this estimate books are assumed to be provided otherwise, as well as clothes, travelling, and other personal expenses. But some have found it possible to save enough out of (1) and (3) to provide the few books that are indispensably necessary. A larger estimate will be better and truer for the great majority of Students. Additions may be made for

- (a) more comfortable living, with a margin for recreation clubs and small social expenses;
- (b) longer residence;
- (c) additional fees (as after failure in examinations);
- (d) more books; and
- (e) special kinds of instruction.

Voluntary returns made in answer to an invitation addressed to all the Senior Students living in lodgings during the winter 1877-8 shew variations in the cost of living from £1 2s. 6d. to £2 6s. 6d. a week, the average being about £1 15s.

It is seldom desirable to keep so little as two-thirds of each term. Especially, Candidates for Honours and Medical Students need to reside not only a larger part of each term, but some portions of the vacations. Vacation residence (which requires special permission) is inexpensive, no fees being payable on account of it.

Professorial instruction, open to all members of the University alike, is not always gratuitous. It is so in Divinity and many other subjects. But students of Medicine and of Natural Sciences

must pay fees for their Lectures as well as for Laboratory work.

Of College Lectures in Classics and Mathematics, one or two courses may be attended by Non-Collegiate Students for £1 1s. a term; two such fees in one term being the most that any one student is likely to pay for Lectures in these subjects. For Law, History, and Divinity, the same statement is generally true. For the instruction in Moral Sciences, which is intended for Honour men, a larger payment is requisite, covering the cost of frequent examinations in connection with the Lectures.

Private tuition is necessary for a small minority. A backward student may want it for a term or two, or more; a candidate for Honours may need it to give him a fair chance in competition with others. The usual cost is £8 a term, or £12 for the months of July and August. Those who seek high honours in Mathematics will require this help almost continually. In other subjects it is less indispensable.

The *average* yearly expenditure of those who made the voluntary returns mentioned above was under £75, exclusive of private tuition; inclusive of this it was under £80. It will not be far from the truth to infer that the average expenditure in Cambridge of Non-Collegiate Students of all classes living in lodgings is between £70 and £80 a year, including in the reckoning books, stationery, postage, and amusements, but not clothes nor travelling expenses.

124 *NON-COLLEGIATE STUDENTS.*

The payments which are obligatory on all Non-Collegiate Students who remain to take the B.A. degree are these:

	£	s.	d.
Caution Money (ultimately returned) ...	3	0	0
Entrance Fee	2	0	0
To the Board, at the commencement of each term of residence, thirty shillings, in nine terms	13	10	0
To the University a Capitation Tax, now seventeen shillings a year, for three years	2	11	0
To the University a Matriculation Fee of fifteen shillings	0	15	0
To the University the Previous Exami- nation fees	2	10	0
To the University, the B.A. Degree fee (at the most ordinary time)	7	0	0

If the Ordinary Degree is taken, there must also have been paid twenty-five shillings for the General Examination, and three guineas on admission to a Special Examination for the Ordinary B.A. Degree.

There is no fee to the Board on taking the first degree. If the student proceeds to a second degree, he pays to the Board a fee of three guineas in addition to the fee paid to the University. There is no Prælector's fee payable by Non-Collegiate Students. The fees payable to the Common Chest of the University on admission to the various degrees are fully stated in a table contained in the article on University and College expenses.

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART II.
MATHEMATICAL TRIPOS.



FOURTH EDITION, REVISED.

CAMBRIDGE:
DEIGHTON, BELL AND CO.
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1880

CONTENTS.

**The Mathematical Tripos, by W. H. BESANT, M.A. F.R.S.
late Fellow of St John's College.**

THE MATHEMATICAL TRIPOS.

THE form of the Examination for the Mathematical Tripos is about to undergo a very considerable change. The regulations now existing will continue in force until the end of January 1882, after which the new scheme comes into operation.

The Examination, which has hitherto been divided into two parts, both conducted in January, will, after January 1882, be divided into three parts, two of which will be conducted in June, and the third in the December following.

The result of the first part will be as before to decide on the candidates to be placed in the Honour List. The second part, in conjunction with the first, will determine the Wranglers, Senior Optimes, and Junior Optimes in the order of merit.

The third part, to which, as the regulations stand at present, only Wranglers will be admitted, will assign classes to the candidates, each class being arranged in alphabetical order.

A candidate for the Tripos may be in his eighth, ninth, or tenth term of residence. For instance, a student whose first term of residence is the

October Term of 1880, or the Lent Term of 1881, will have to prepare for the Examination of June 1883; while a student whose first term of residence is the May Term of 1881 will be counted amongst the freshmen of October 1881, and will be examined in June 1884.

The following extracts from the regulations give the details of the Examination to be conducted in June 1882, and for such time after as the Senate of the University may determine.

REGULATIONS FOR THE MATHEMATICAL TRIPOS EXAMINATIONS AFTER JANUARY, 1882.

1. The Examination for the Mathematical Tripos shall consist of three parts of three days each.

2. The Examination in Part I. shall be confined to the more elementary parts of Pure Mathematics and Natural Philosophy, as defined by Schedule I., the subjects to be treated without the use of the Differential Calculus and the methods of Analytical Geometry.

3. On the eighth day after the conclusion of Part I. the Moderators and Examiners shall declare what persons have so acquitted themselves as to deserve Mathematical Honours, or to deserve an Ordinary B.A. Degree, or to be excused from the General Examination for the Ordinary B.A. Degree, and those Candidates only shall be admitted to the Examination in Part II. who are declared to have so acquitted themselves as to deserve Mathematical Honours.

4. The Examination in Part II. shall comprise the subjects included in Schedule II.

5. The Examination in Part I. shall begin on the Monday next before the 1st Sunday in June.

6. The Examination in Part II. shall begin on the Monday following the 2nd Sunday in June.

7. On the tenth day after the end of Part II. the Moderators and Examiners, taking into account the Examination in Parts I. and II., shall publish a list of the Candidates arranged in the three classes of Wranglers, Senior Optimes, and Junior Optimes.

8. In this List the Wranglers, Senior Optimes, and Junior Optimes shall be arranged in order of merit.

9. The Wranglers only shall be admitted to the Examination in Part III.

10. The Examination in Part III. shall begin on the 1st Monday in January in each year.

11. The Examination in Part III. shall comprise the subjects in Schedule III.

12. On the tenth day after the end of the Examination in Part III. the Moderators and Examiners, taking into account the Examination in Part III. only, shall publish in three divisions, each division arranged alphabetically, a list of those examined and approved.

13. The Moderators and Examiners may place in the first division any Candidate who has shewn eminent proficiency in any one group of Schedule III.

14. In each of the Book-work papers in Part III. the Moderators and Examiners shall fix a limit to the number of questions to which any Candidate shall be permitted to send in answers, and the limit so fixed shall be printed at the head of each paper.

SCHEDULE I.

Euclid. Books I. to VI. Book XI. Props. i. to **xxi**.
Book XII. Props. i. ii.

Arithmetic; and the elementary parts of Algebra; namely, the rules for the fundamental operations upon algebraical symbols with their proofs, the solution of simple and quadratic equations, ratio and proportion, arithmetical, geometrical and harmonical progression, permutations and combinations, the binomial theorem, and logarithms.

The elementary parts of Plane Trigonometry, so far as to include the solution and properties of triangles.

The elementary parts of Conic Sections, treated geometrically, but not excluding the method of orthogonal projections ; curvature.

The elementary parts of Statics ; namely, the equilibrium of forces acting in one plane and of parallel forces, the centre of gravity, the mechanical powers, friction.

The elementary parts of Dynamics ; namely, uniform, uniformly accelerated, and uniform circular motion, falling bodies and projectiles in vacuo, cycloidal oscillations, collisions, work.

The first, second, and third sections of Newton's *Principia* ; the propositions to be proved by Newton's methods.

The elementary parts of Hydrostatics ; namely, the pressure of fluids, specific gravities, floating bodies, density of gases as depending on pressure and temperature, the construction and use of the more simple instruments and machines.

The elementary parts of Optics ; namely, the reflection and refraction of light at plane and spherical surfaces, not including aberrations ; the eye ; construction and use of the more simple instruments.

The elementary parts of Astronomy ; so far as they are necessary for the explanation of the more simple phenomena, without the use of spherical trigonometry ; astronomical instruments.

SCHEDULE II.

Algebra.

Trigonometry, Plane and Spherical.

Theory of Equations.

Easier parts of Analytical Geometry, Plane and Solid, including Curvature of Curves and Surfaces.

Differential Calculus.

Integral Calculus.

Easier parts of Differential Equations.
Statics, including Elementary Propositions on Attractions and Potentials.
Hydrostatics.
Dynamics of a Particle.
Easier parts of Rigid Dynamics.
Easier parts of Optics.
Spherical Astronomy.

SCHEDULE III.**GROUP A.**

Differential Equations.
Calculus of Variations.
Higher Algebra.
Higher parts of Theory of Equations.
Higher Analytical Geometry, Plane and Solid.
Finite Differences.
Higher Definite Integrals.
Elliptic Functions.
Theory of Chances, including Combination of Observations.

GROUP B.

Laplace's and allied Functions.
Attractions.
Higher Dynamics.
Newton's Principia, Book I. Sect. IX., XI.
Lunar and Planetary Theories.
Figure of the Earth.
Precession and Nutation.

GROUP C.

Hydrodynamics, including Waves and Tides.
Sound.

Physical Optics.

Vibrations of Strings and Bars.

Elastic Solids.

GROUP D.

Expression of Functions by Series or Integrals involving sines and cosines.

Thermodynamics.

Conduction of Heat.

Electricity.

Magnetism.

SCHEDULE IV.

PART I.

Days.	Hours.	Subjects.
Monday	9—12 1½—4	Euclid and Conics Arithmetic, Algebra and Plane Trigonometry
Tuesday	9—12 1½—4	Statics and Dynamics Hydrostatics and Optics
Wednesday	9—12 1½—4	Easy Problems in Subjects of Part I. Newton and Astronomy

PART II.

Days.	Hours.	Subjects.
Monday	9—12 1½—4	Natural Philosophy Pure Mathematics and Natural Philosophy
Tuesday	9—12 1½—4	Problems Pure Mathematics
Wednesday	9—12 1½—4	Pure Mathematics Natural Philosophy

PART III.

Days.	Hours.	Subjects.
Monday	9—12	Groups B, C, D
	1½—4½	Groups A, C, D
Tuesday	9—12	Problems
	1½—4½	Groups A, B, D
Wednesday	9—12	Groups A, B, C, D
	1½—4½	Groups A, B, C

It must be distinctly understood that the results of the first three days of the Examination determine the list of the candidates who are considered to deserve a place in the Honour List. Those candidates who have not so far satisfied the Examiners, if not rejected altogether, may be allowed an ordinary degree, or may be excused from the general Examination for the ordinary B.A. degree, in which case a candidate will have to pass one of the special Examinations.

The names of those who are absolutely rejected are not published. Usually there are very few who fail entirely, for the examination is well understood by College Lecturers and Private Tutors, and men who are hopelessly unprepared do not often venture to try the patience of the Examiners.

Students commence their residence in the University with such various degrees of preparation, that no exact course of reading can be laid down; and, moreover, the tastes and idiosyncrasies of dif-

ferent men may render many different arrangements advisable. Nevertheless it may be useful to give a general view of the order of reading, and of the books to be employed, in order to secure a place, or to take high rank, in the Tripos.

A certain amount of guidance will be given by the College Examinations; hitherto it has been the practice of all Colleges to hold Examinations at the end of May or the beginning of June, and of some Colleges in December; under the new system it will probably become a general practice to hold Examinations in December as well as in June.

With slight variations at different Colleges it may be expected that the subjects of Examination will be, for the first year; Euclid, Algebra, Trigonometry, Geometrical Conics, plane co-ordinate Geometry, Differential and Integral Calculus, and Elementary Mechanics.

For the second year; Theory of Equations, Solid Geometry, Differential Equations, Statics, Dynamics, Hydrostatics, Optics, and the first three sections of Newton's Principia.

For the third year; advances on the preceding subjects, with Formal and Physical Astronomy, and the higher branches of both Pure and Applied Mathematics.

The preceding sketch represents a probable state of things, but it is quite possible, in view of the diminution of the time of residence, that a more rapid progress may be made, and that, in con-

sequence, the earlier examinations may be more heavily weighted.

The student who aims at high place in the Tripos will naturally endeavour to keep on a level with, or to be ahead of, the College Examinations, and he will certainly find it greatly to his advantage to do so. The range is large, but it is usual to include in each Examination one or more of the 'Three Days' subjects, and the candidate whose attention is limited to the elementary branches of Mathematics will on each occasion be able to test his own proficiency.

It is obvious that, to the majority of Mathematical Students, a study of the whole set of subjects laid down in the Schedule must be an impossibility, and, as a general rule, only those who enter the University with an elaborate previous training, can hope to acquire a knowledge of the whole range. In all cases care is required not to attempt too large a range of reading, and the important point is to master thoroughly any subjects, or portions of subjects, which may be undertaken. The questions proposed, in the Examination in the Tripos, are usually of a severe and searching character, and it is sternly conducted in accordance with the principle that knowledge, to be worth anything, must be thorough and accurate.

It is rare for a young man to obtain high honours who has not had some considerable training at school, or elsewhere, but such cases do sometimes occur, and everything is possible to a man of real

scientific ability and possessed of the requisite industry and endurance. Such a man may find the first steps difficult and laborious, but he will soon discover that his intellectual strength develops rapidly, and that his advances are made with accelerated speed.

On the other hand there are many men whose time is limited, and who, from this cause, or for other reasons, are compelled to limit their reading to the elementary portions of Mathematical science, and to give their attention, chiefly or entirely, to those subjects which are dealt with in the first three days of the Examination.

Students of this class will however find ample employment for their time and energies, for it must not be imagined that what are called the elementary subjects can be mastered without careful study and earnest intellectual effort.

The word elementary simply implies that the subjects in question are to be developed as far as they can be without the aid of the elaborate Machinery supplied by Modern Analysis. In other words, the methods of pure geometry and ordinary Algebra and Trigonometry are to be the only instruments employed; and the effect of this restriction is, in many cases, to make the treatment of Mathematical ideas more difficult, and to call out a more direct and powerful application of intellectual energy.

A sketch may now be given of a course of reading, which shall form a suitable preparation for the first three days.

The editions of Euclid by Todhunter and Potts are chiefly used; both contain collections of exercises, which are of great value, and it will be well for the student, who has not already done so, to devote some time to these, or to exercises of a similar character.

A good knowledge of Geometrical Theorems is useful in all mathematical study, and the student who can acquire skill in the solution of Geometrical Problems will find his subsequent labours very much lightened.

We may mention Colenso's Exercises, with hints for their solution, as a very useful collection, and M^cDowell's Exercises in Euclid and Modern Geometry as an excellent introduction to the later developments of Geometry.

Mulcahy's and Townsend's Treatises on Modern Geometry are valuable and attractive works, and the student who can afford the time to extend his Geometrical knowledge will do well to read through, or to read selections from, either of those books.

For Geometrical Conic Sections the books in general use at present are Drew's, Besant's, and Taylor's.

Todhunter's *Algebra* is at present the most popular text-book on that subject.

The mere beginner would however find it advisable to commence with either Todhunter's *Elementary Algebra*, or with Hamblin Smith's *Algebra*, and he would find either of these books

a most valuable introduction to Todhunter's important work on the subject.

Colenso's *Algebra*, and Lund's edition of Wood's *Algebra*, are both full treatises on the subject; and Peacock's *Algebra*, although somewhat antiquated, is still valuable, as giving a thoroughly sound and philosophical view of the principles of the science.

For Trigonometry, the Treatise by Todhunter may be used, or any one of the Treatises by Colenso, Beasley, or Hudson.

Parkinson's and Todhunter's books on Elementary Mechanics, and Garnett on Dynamics, are in general use, and a little shilling volume on 'Matter and Motion' by Clerk Maxwell will be found to be of great value.

Besant's *Elementary Hydrostatics*, or Phear's, will be found to contain what is requisite on that subject; and, for Optics, the student may read either Aldis's *Optics* or selections from Parkinson's Treatise.

The first three sections of Newton's *Principia* may be studied in Frost's elaborate edition, or in Evans's *Newton*, edited by Main.

For Astronomy, Main's *Elementary Treatise* may be usefully employed, or selections may be made from Godfray's *Astronomy*; and in conjunction with either of these books, Airy's *Elementary Astronomy*, and Herschel's *Astronomy*, would be found to be most valuable.

A Nautical Almanac is a great help to the acquisition of sound views, and a lecture on

'Navigation' by Sir W. Thomson will give many useful hints.

These books will serve as introductions to the subject of Astronomy, but the range is large, and the literature enormous; and, to acquire a really good knowledge of elementary formal Astronomy, the student will have to go through a very extensive course of reading.

Procter's books for instance form a treasure-house of Astronomical knowledge, but a thorough study of these books would be a work of time.

What we have just said with regard to Astronomy applies also, although with not so much force, to the subjects of Elementary Mechanics, Hydrostatics, and Optics; the books we have mentioned will be sufficient for the Mathematical Tripos Examination, but the student would gain much benefit from a study of such books as Ganot's *Physics*, or Deschanel's *Natural Philosophy*, in which much practical illustration is given, while a very small demand is made upon the mathematical skill of the reader.

In all these subjects the student will find it necessary, not merely to study the text, but also to work out examples, and to practise himself in the solution of problems; in no other way can he hope to acquire a clear comprehension of the principles and methods expounded in the books.

We will now consider the case of the more ambitious student, who has acquired some skill in

Elementary Mathematics, and starts from a higher level. He will probably enter the University with some knowledge of Co-ordinate Geometry, Differential Calculus and Mechanics.

If he is really well skilled in these subjects he may advance safely and rapidly, but let him be careful to have some test applied, and to be sure of a safe foundation. He may then arrange, as is usually done, to keep his private reading well ahead of College Lectures, and he will thereby secure an additional revision of his studies, and will also gain time for the due consideration and full appreciation of the College Lectures.

The private Tutor will most effectively apply the tests which are requisite, and we may now remark that, for the majority of students, the aid of a private Tutor must be regarded as a matter of necessity.

The present system of severe competition compels such close attention to the subjects of Examination that the student requires special advice, to keep his reading in the right track, and to direct his attention to the most recent advances and improvements. In many cases, however, where the student is not highly advanced in his reading, he will find that a careful attention to College Lecture Courses will leave him very little time for anything else, and will thus enable him, at any rate during term time, to dispense with the aid of a private Tutor. Moreover, during the last few years, the rearrangements of College

Lectures which have been made at Trinity, and at St John's, and the establishment of systems of Inter-Collegiate Lectures in other Colleges, have been intended to give a larger amount of help to undergraduate students, and to make the assistance of the private Tutor less a matter of necessity than has hitherto been the case.

Opinions of course will differ as to the order in which the various branches of pure and applied Mathematics should be studied, and in many cases, it is a matter of very little consequence.

Some points however may be mentioned as of importance.

For the subject of Plane Co-ordinate Geometry Todhunter's Treatise, or Puckle's, may be first read. It will then be necessary to study Salmon's *Conics*, and Ferrers's *Trilinear Co-ordinates*. Other Treatises in this extensive subject will be mentioned in the list at the end of this paper.

After the Differential Calculus has been studied in Todhunter's, or in Williamson's Treatise, the Integral Calculus will naturally follow. For this subject Todhunter's Treatise is chiefly used, and at this stage we may suggest that the student should master the Calculus of Variations, as given in the last chapter of Todhunter's Integral Calculus. A perception of the principle of the Calculus of Variations will produce a great economy of time in the subsequent study of Dynamics. For a similar reason the subjects of Solid Geometry and Differential Equations may now be taken up, and a prac-

tical knowledge of these pieces of analytical Machinery will save the student much useless labour, when he commences the study of Theoretical Mechanics.

Solid Geometry may be first studied in Aldis's or in Frost's book, and Salmon's on the same subject may be read by those who have time enough to make an elaborate study of the subject.

Boole's treatise is the book chiefly used for Differential Equations.

The Calculus of Finite Differences may be studied now, or at any other time, in Boole's Treatise on the subject, edited by Moulton.

Pearson's Treatise on Finite Differences is small, but compact and useful, and may be advantageously read by a student whose time is limited.

An extended knowledge of the Calculus of Variations will be obtained by consulting Jellet's Book, and Todhunter's History.

Acting on the principle of having first learnt the use of his tools the student may now commence the formation of his storehouse of Mechanics and Physics.

Todhunter's *Statics*, or Minchin's *Statics*, Tait and Steele's *Dynamics*, Routh's *Rigid Dynamics*, and Besant's *Hydromechanics* will occupy a considerable time. Many students, particularly if working without the help of a teacher, will find Walton's *Mechanical Problems* a very useful book. Parkinson's *Optics*, Godfray's or Hymers' *Astronomy*, Godfray's *Lunar Theory*, and Cheyne's *Planetary Theory* may follow in any order.

Lamb's *Motion of Fluids*, Donkin's *Acoustics*, and Lord Rayleigh's *Sound and Vibrations*, are works of great value and importance.

Maxwell's excellent book on Heat may be read at any time, followed by Tait's *Thermo-Dynamics*.

For those who undertake the study of Electricity and Magnetism, Cumming's book will be an easy introductory Treatise. This may be followed by Maxwell's *Electricity*, or by Chrystal's article on the subject in the new edition of the *Encyclopædia Britannica*.

Courses of Lectures are given at the Cavendish Laboratory by the Professor of Experimental Physics; and Mr W. D. Niven, of Trinity College, also gives Theoretical lectures on the same subject.

Spherical Harmonics and their applications to Mechanics and Electricity are dealt with in Ferrers's Book, in Heine's *Handbuch der Kugel-functionen*, in Thomson and Tait's *Natural Philosophy* and in many other books.

For the study of Physical Optics, Airy's *Undulatory Theory*, and Lloyd's *Wave Theory*, with Aldis's Tract on Fresnel's Theory, are usually read at first.

Billet's *Optique Physique* is an exhaustive work, and the student will find most valuable treatises on portions of the subject in Jamin's *Cours de Physique*, and in different volumes of Verdet's works.

Professor Stokes's lectures on Hydrodynamics and Optics occupy one term, and are so arranged as to give prominence to one subject during alternate

years; the student will therefore find it advisable to attend these lectures during two consecutive years.

We have referred chiefly to books in which a demand is made upon the mathematical skill of the reader, but a large amount of valuable information may be obtained from such treatises on Natural Philosophy as those of Ganot and Deschanel, already referred to, and the most skilful analyst will not lose time by a study of books in which the facts of Natural Philosophy are explained more at length than is possible in books which take into their service the higher methods of Mathematical Calculation.

The treatise of Lamé, *Sur la Théorie de l'Elasticité des Corps Solides*, is an attractive work. The subject may however be studied by making selections from Thomson and Tait's *Natural Philosophy*; and there is a paper by Maxwell, "On the Equilibrium of Elastic Solids," in the *Transactions of the Royal Society of Edinburgh* for the year 1850.

Mr Freeman has recently published a translation of Fourier's *Théorie de la Chaleur*, and in Riemann's *Differential-Gleichungen* will be found solutions of some of the cases on the conduction of Heat.

Verdet also has devoted some chapters to the subject, and many important cases are elaborately treated in Mathieu's *Cours de Physique Mathématique*.

In addition to the information derivable from treatises on special branches, a masterly view of a

large range of Mechanical Science will be obtained in Thomson and Tait's *Natural Philosophy*; and the student who can afford the time will consult the great treatises of Laplace and Lagrange, the *Mécanique Céleste*, and the *Mécanique Analytique*.

The preceding sketch is merely an introduction to the vast field of literature, which offers itself to the Student of Mathematical science. It is however an outline of the extent of reading which is required for success in the Mathematical Tripos, and so far may be useful.

There are innumerable details, upon which information will be required, and to supply this information, with whatever other help may be considered necessary, is the function of the College Lecturer and the Private Tutor.

We have referred occasionally to French and German books, and we may here observe that, to the student who is well advanced, a knowledge of the French language is indispensable, or at any rate such a knowledge as will enable him to read an ordinary French Mathematical treatise; and a knowledge of the German language is of the greatest possible value to the student who wishes to keep himself abreast of the rapid advances which are being made in Mathematical science, and in the applications of Mathematics to Physics.

The character of the questions proposed of course varies from year to year, and depends in great measure on the taste and ideas of the Examiners. Nevertheless the traditions of past

Examinations, and the regulations of the Schedule, serve to prevent any violent or unexpected alterations, and a good idea of the general character of any coming Examination may be obtained by a study of the questions proposed in those of the two or three years preceding.

The Examiners are always men of high degree, and often of very great scientific distinction, and the trouble and responsibility of the work are so great that no one, who does not feel himself competent for the task, will venture to undertake it.

There may be a tendency one year to give prominence to certain branches of pure Mathematics, and another year to certain branches of applied Mathematics; but these variations are not of serious importance, and, in an Examination of so large a range, full justice is done to all the Candidates¹.

The average student must not expect to advance rapidly at first, and must not try too much. Scientific ideas are difficult to some minds, and the student need not be discouraged if he fails at once to grasp a new idea.

One principle is not to try at first to *remember*; let the mental effort be applied to discover the meaning of a book; the memory will usually come when it is wanted.

Again, one of the objects aimed at in a book is

¹ The papers of questions are published in the *Cambridge Calendar*, and in the *Almanac and Register*. They can also be obtained, in a quarto form, separately.

to illustrate general principles by particular cases ; a careful study of these cases will usually give help to the patient reader, and a clear view of a difficult principle will gradually present itself to his mental vision.

Lastly, it cannot be too often repeated that much mischief is done, and many failures are caused by over-reading, that is, by attempting too wide a range of 'study, and, to check this tendency, much discretion is necessary on the part of a student's teachers and advisers.

A little knowledge is *not* a dangerous thing when it is real and thorough as far as it goes ; and the most dangerous temptation to a student is the possibility of acquiring an extensive and showy, but superficial knowledge, of a large number of subjects, instead of a thorough acquaintance with a limited range.

The previous remarks are applicable to a general course of Mathematical reading, but, for those who attempt the Mathematical Tripos after January 1882, it will be necessary to consider how far the higher subjects should be carried. The restriction that only Wranglers shall be admitted to the Examination in Part III makes it evident, that, except in the case of a limited number, a study of any of the groups of Part III will be useless for Examination purposes ; and the attention of the majority of Mathematical students will therefore be concentrated on the subjects of Parts I and II.

A large amount of pecuniary aid is now given

by the different Colleges in the forms of Scholarships and Exhibitions.

These are usually given to deserving students after the results of the College Examinations at the end of the May Term have been made known to the College authorities. Minor Scholarships are given by an examination taking place, in almost all Colleges, some months before residence commences.

The subjects of examination include at all Colleges, Euclid, Algebra, Trigonometry, and Geometrical Conic Sections, and in some cases, Co-ordinate Geometry, with Trilinears, Differential Calculus, and Elementary Mechanics are added.

The object of the Examiners is to find out the most promising students, and the examination is generally of a stringent character. Skill in the solution of problems, and particularly of problems in pure Geometry, is of great importance, and the candidate for a Minor Scholarship will do well to develope, as far as he can, his powers of dealing with pure Geometry, even although his doing so may have the effect of limiting the extent of his reading.

The Sheepshanks Exhibition, for Astronomy, is open to the candidature of all undergraduates, but the successful candidate, if a member of any other College, must transfer his name to the boards of Trinity College.

With this exception there are no University Scholarships given exclusively for Mathematical knowledge; and the only cases in which Mathe-

matics appear at all are in the examinations for the Bell and the Abbott Scholarships, in which some Mathematical papers, of a somewhat elementary character, are proposed. These papers however are not generally of very great weight unless it happens that there is a dearth of highly qualified classical candidates.

The total amount of residence which is compulsory is about twenty-five weeks of the year, and it is during this time that the College Lectures and Professors' Lectures are given.

The Mathematical student must not however imagine that the rest of the year may be spent in idleness. It is customary for many undergraduates, and especially for those who aim at high place in the Tripos, to reside in Cambridge during the months of July and August, and much important work can be done during the summer. Again, the Christmas vacation is a valuable period of time during which the earnest student can quietly revise and reflect over the work of preceding terms, or make preparations for the future.

It may be well to suggest that much revision is necessary in order to keep the store of acquired learning in working order; in particular, the last six months preceding the examination will in general be sufficiently occupied by a series of revisions, and it will be only in a few cases that the student will find time for the mastery of fresh subjects or new sets of ideas.

Without attempting to discuss at large the

intellectual and practical advantages of a course of scientific reading, we may call attention to the facts that the demand for Mathematical Teachers is increasing, and that there is a tendency in schools and educational institutions to give more time and attention to mathematical studies.

There are many, amongst the candidates for the Tripos, who look forward to the work of teaching as a profession, and for them there is an encouraging prospect of an increased recognition of their labours.

There are others, whose scientific learning may not be directly utilised in their subsequent careers; but, in all cases, the habits of industrious application, of careful thinking, and of accurate expression, which are amongst the general results of a course of mathematical study, are practical advantages of the greatest value in any profession, or in any of the pursuits of an active mind.

Finally, the student may be assured, that, independently of all other considerations, the fascination of mathematical study increases with the growth of knowledge, and the acquisition of skill in the processes of calculation, and that, although the labour expended may be occasionally severe, it will be found to carry with it its own reward, in the power of dealing with scientific difficulties, and in the appreciation of the many practical applications of science, which are characteristic of the present time.

The following list contains the titles of books which are now in general use, and which are serviceable to the majority of students.

It will be of course understood that this list does not include all the books which may be useful, and the highly advanced mathematician, who may be anxious to make excursions into other regions of scientific writing, will easily obtain the requisite information from the lectures of Professors, or from his College Lecturers, or other advisers. Different Treatises on the same subject are sometimes mentioned, and the selection must be made to suit the taste or the capacity of the student.

Euclid. Editions by Todhunter or Potts.

Geometrical Conics. Besant, Drew, Taylor, or Richardson.

M^cDowell's Exercises in Euclid and modern Geometry.

Modern Geometry. Mulcahy, Townsend.

Catalan. Théorèmes et Problèmes de Géométrie Elémentaire.

Algebra. Todhunter, Colenso, Lund, Gross.

Whitworth's Choice and Chance.

Trigonometry. Todhunter, Beasley, Hudson, Colenso, Walmisley.

Elementary Mechanics. Parkinson, Todhunter.

Garnett's Elementary Dynamics.

Walton's Problems in Elementary Mechanics.

Elementary Hydrostatics. Besant, Phear.

Elementary Optics. Aldis.

Frost's Newton.

Evans's Newton, edited by Main.

Main's Elementary Astronomy.

Airy's Elementary Astronomy.

Herschel's Astronomy.

Goodwin's Course, edited by Main.

Conic Sections. Todhunter, Puckle, Turnbull,
Salmon.

Differential Calculus. Todhunter, Williamson.

Integral Calculus. Todhunter, Williamson.

Gregory's Examples of the Differential and
Integral Calculus.

Trilinear Coordinates. Ferrers, Price.

Whitworth's Modern Geometry.

Solid Geometry. Aldis, Frost, Salmon.

Differential Equations. Boole, Hymers.

Finite Differences. Boole, Pearson.

Carmichael's Calculus of Operations.

Todhunter's Theory of Equations.

Salmon's Lessons on the Higher Algebra.

Salmon's Higher Plane Curves.

Algèbre Supérieure. Serret.

Théorie des Determinants. Dostor.

Scott on Determinants.

Spherical Trigonometry. Todhunter.

Statics. Todhunter, Minchin.

Moigno. Leçons de Mécanique Analytique.

Dynamics of a Particle. Tait and Steele,
Sandeman.

Routh's Rigid Dynamics.

Besant's Hydromechanics.

- Lamb's Motion of Fluids.
 Lord Rayleigh's Sound and Vibrations.
 Donkin's Acoustics.
 Parkinson's Optics.
 Astronomy. Godfray, Hymers, Main
 Loomis's Practical Astronomy.
 Morgan's Problems.
 Walton's Mechanical Problems.
 Wolstenholme's Book of Problems.
 Lunar Theory. Godfray.
 Planetary Theory. Cheyne.
 Undulatory Theory. Airy.
 Wave Theory of Light. Lloyd.
 Optique Physique. Billet.
 Figure of the Earth. Pratt.
 Ferrers's Spherical Harmonics.
 Todhunter. Lamé's and Bessel's Functions.
 Heine. Handbuch der Kugel-functionen.
 Deschanel's Natural Philosophy, by Everett.
 Briot. Traité de la Chaleur.
 Electricity. Cumming, Fleeming Jenkin, Maxwell, Mascart.
 Airy's Magnetism.
 Maxwell's Heat.
 Thermodynamics. Tait, Baynes.
 Kinetic Theory of Gases. Watson.
 Lamé. Théorie Mathématique de l'élasticité des corps.
 Clebsch. Elasticität.
 Natural Philosophy. Thomson and Tait.
 Theory of Errors. Airy, Liagre.

Riemann. Partielle Differential-Gleichungen.
Wand. Die Principien der Mathematischen
Physik.

Elliptic Functions. Cayley, Durége, Broch,
Briot et Bonquet.

Bertrand. Calcul Différentiel, and Calcul
Intégral.

Serret. Calcul Différentiel, and Calcul Intégral.

Poisson. Mécanique.

Cours d'Analyse, and Cours de Mécanique.
Duhamel.

Resal. Mécanique Generale.

Mathieu. Cours de Physique Mathématique.

Jamin. Cours de Physique.

Verdet. Œuvres.

Green's Papers, edited by Ferrers.

Sir W. Thomson's Papers on Electrostatics and
Magnetism.

Kirchhoff. Vorlesungen über Mathematische
Physik.

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART III.
CLASSICAL TRIPOS.



FOURTH EDITION, REVISED.

CAMBRIDGE:
DEIGHTON, BELL AND CO.
LONDON: GEORGE BELL AND SONS.
1880

CONTENTS.

**The Classical Tripos, by the Rev. R. BURN, M.A. Fellow,
Prælector, and late Tutor, of Trinity College.**

CLASSICAL TRIPOS.

Introductory Remarks.

So far from Sir W. Hamilton's statement being true at the present time, that "the University of Cambridge holds out not only a special but a paramount, not to say an exclusive, encouragement to the mathematical sciences," it is much more true to assert that *more encouragement is given at Cambridge to the Classical student than to the Mathematical, not only in prizes, scholarships, and temporary rewards of various kinds, but also in the most solid and lasting rewards the University can bestow.*

The grounds on which this high value has been set upon Classical study as an instrument of education are ably stated by Donaldson in his work on *Classical Scholarship and Classical Learning*, pp. 94—98, by W. G. Clark, late Public Orator of the University, in an *Essay on Classical Education*, contributed to the Cambridge Essays of 1855, and by Arnold in the *Quarterly Journal of Education* for 1834 and 1835. See also Arnold's *Sermons*.

Vol. III. Introduction, p. xii, and his *Lectures on Modern History*, pp. 123, 143. J. S. Mill's *Inaugural Address at St Andrews*, 1867, pp. 22—38, contains some valuable remarks on Classical study.

Classical studies may be regarded either as an instrument of education or a source of knowledge.

As a means of educating and strengthening the reasoning powers, their chief advantage lies in the dependence of the reasoning faculty upon language as its instrument. In order to perform any logical process correctly, the habit and faculty of analysing language and tracing the etymology of terms is most necessary. See Mill's *Logic*, Book I. chap. 1. The exercises of the University Classical examinations in translating the more difficult Greek and Latin writers from the original into English, or in the reverse process of translating English authors into Greek or Latin, call the student's powers into play in the most complete and rigorous manner. The exact point of view from which the writer to be interpreted regards his subject must be seized, the line of thought and reasoning followed, the various interpretations which offer themselves considered, grammatical rules must be applied correctly, the memory must be ransacked for passages which will serve for illustration or elucidation, and the whole evidence summed up in order to arrive at the right meaning of the passage under consideration. When the meaning has been satisfactorily determined, the student's power of expression, the copiousness of his vocabulary, his

skill in weighing the value of words, and his taste in discriminating between their various shades of meaning, have all to be called into action in order to produce a forcible and, at the same time, an accurate version of his author. A long and careful training in accuracy both of thought and expression is necessary in order to ensure the performance of this complicated process with rapidity and ease.

As a source of knowledge the advantages of a study of the Classics are no less admirable.

The mind of the student is brought into contact with the thoughts of the greatest philosophers, historians, poets, and orators the world ever produced. He is constantly employed in hearing the most important questions of philosophy and politics discussed by the wisest of men, in studying the grandest truths expressed in the most perfect forms of speech, and in learning the experience of past times from the pages of the most masterly of historians. He thus becomes capable of judging by a high intellectual standard, his knowledge is enlarged, his taste cultivated, and his judgment matured. Add to this, that having thoroughly mastered the grammatical principles upon which the most delicate and expressive of languages are constructed, he gains a master-key by which to unlock the treasures of the noblest European languages. The literature of England and of other European nations, being grounded and framed upon Greek and Latin models, cannot be thoroughly understood except by the Classical scholar.

The indispensable necessity of a knowledge of Classics to the Theological student need hardly be pointed out.

In the great public schools the Classical teaching in the lower forms is mainly directed to the acquirement of a perfect acquaintance with elementary Greek and Latin grammar by incessant practice in exercises both prose and verse, and by *vivâ voce* construing, accompanied with catechetical instruction. Large portions of the best authors are also learnt by heart. In the lower classes parts of Virgil, Cæsar, Horace, Ovid, Cicero, Livy, Homer, Euripides, and Xenophon are read. The amount of these authors required is increased in the higher classes, and some of the more difficult authors, as Sophocles, Thucydides, Æschylus, Juvenal and Tacitus, are added. In the highest class Plato, Pindar, Aristophanes, and Plautus are occasionally studied, and the range of subjects includes from time to time portions of most of the authors read at Cambridge for the Classical Tripos Examination. Three points in the method of training adopted by the English public schools deserve especial mention, as they contribute most materially to the formation of good scholars for the Universities. The first of these is the strict enforcement of a knowledge of grammatical inflections and constructions. Such knowledge, unless acquired early, can seldom become sufficiently familiar to the mind of the student to enable him to apply the rules of grammar with ease and accuracy in writing Latin

and Greek. A second invaluable means of training the future scholar is the constant learning by heart and repetition of large portions of standard writers in Greek, Latin, and English. This may be said to be the surest method of laying the foundation for excellence in the composition of Latin and Greek. A third point is the writing of original exercises in verse and prose on set subjects, as well as translations from English into Latin and Greek. The practice of the best schools has always been in favour of original exercises in Latin and Greek as well as translations from English. The reason of this is no doubt that boys are thus led to study the Greek and Latin authors for themselves, with the view of gleanng constructions and expressions from them, and learn to catch the living spirit of the author whose style they wish to copy. On the other hand, in making translations, the boy refers to dictionaries alone for his vocabulary, and to grammars for his constructions, and the result is, as may be imagined, stiff and lifeless. A sparing use should therefore be made at schools of such books as Holden's *Foliorum Silvula* and *Centuriæ*, and Kennedy's *Selections for Translations*, and subjects should be set for original composition, with hints, which will lead the pupil to seek help from the classical authors themselves¹. A caution may

¹ The following remarks from Mr Nettleship's admirable pamphlet on *The true aim of Classical Education* confirm the view above stated. "The practice of giving two or three comparatively short pieces of English in the week for trans-

here be added against the adoption of too wide a range in the authors studied before coming to the University. It is far better for a youth to come to College totally unversed in such authors as Plautus, Lucretius, Pindar, Theocritus, and Aristotle, than to have gained a smattering of these to the neglect of Virgil, Horace, Livy, Euripides, and Thucydides. The amount of reading brought by the student to the University is of minor importance, provided that he has been trained to habits of strict accuracy and to the exercise of his reasoning faculties as well as his memory. An occasional visit to the University and personal conference with the tutors and examiners of their former pupils would be very useful to the masters of minor schools in learning how to direct their teaching. In the larger public schools this intercourse is constantly kept up by the addition of younger men to the staff of masters, who bring with them an intimate acquaintance with the requirements of University Examinations.

The above remarks on the teaching of Classics

lation into Greek or Latin has the effect, in the case of older boys, of unnecessarily dividing the attention, and of concentrating the mind both of teacher and pupil too much upon minutiae of language while it does little for originality and nothing for research or power of treatment. In order to develop an intelligent boy's capacity in the latter respect, one long original exercise in the week whether in verse or prose would probably be more efficient. This arrangement would leave the boys time for thought and research, which should be directed by the teacher."

in schools may be excused by the fact that in no Examination so much as in the Classical Tripos are the effects of early training manifested. We have therefore indicated the chief points of the method pursued in the best public schools for laying the foundation of future excellence in scholarship.

The student who has enjoyed the advantages of an education at a good public school, will generally be able to judge for himself, to a certain extent, as to the direction of his studies at the University, and will probably have able advisers to aid him when in doubt. Our object will therefore be rather to address the student who has no such advantages, and to point out the best way in which he can remedy his defects, and the course of study he must pursue in order to compete with success for Classical Honours.

It is assumed that a moderate knowledge of the Classical writers usually read in schools and enumerated above has been acquired.

The new regulations for the Classical Tripos will come into force first in the Easter Term, 1881. Classical Tripos Examinations will also be held under the old regulations passed in 1869, in the Lent Terms of the years 1881, 1882. In the Easter Term of the year 1881, an examination will be held according to the regulations for the first part of the newly-sanctioned Classical Tripos scheme as laid out below, and in the Easter Terms of the years 1882 and following years two examinations will be held

—one for the first part and another for the second part of the subjoined scheme. See *Cambridge University Reporter*, Nos. 281, 291, 293, 303.

*The first part of the Classical Tripos
Examination.*

This consists of four papers in Composition, one from English into Latin Prose, one from English into Greek Prose, one from English into Latin Verse, and one from English into Greek Verse. These will be set on the mornings of four days for three hours each. There will also be four papers of questions such as may fairly be set to Students who have not yet acquired a special knowledge of the subjects of the second Classical Examination. Each of these papers will be set for one hour and a half. The first will contain questions on Greek history, literature, and antiquities, the second on Roman history, literature, and antiquities, the third on Greek grammar and criticism and the fourth on Latin grammar and criticism.

Five papers will also be set containing passages for translation from the best Greek and Latin authors together with questions arising immediately out of any such passages. Among these passages there are not to be any which require a special and technical knowledge of the subjects of the second part of the Examination. Students may be candidates for honours in the first part of the Classical Tripos Examination in their fifth term (see Grace of Senate passed on May 29, 1879. *Reporter*,

No. 291, p. 596), but not after their tenth term. Students who pass the first part of the Classical Tripos Examination in their second year before their eighth term are excused the General Examination for the B.A. degree. In order to be able to take the B.A. degree such a student will have to pass one of the special examinations for the ordinary degree, or the second part of the Classical Tripos, or one of the other tripos examinations. Students who pass the first part of the Classical Tripos Examination not earlier than their eighth term, are entitled to the B.A. degree if they have kept the requisite number of terms. The examination is fixed to commence on the Monday after the last Sunday but one in May.

Composition Papers.

On the papers of composition in the first part of the Classical Tripos Examination the following remarks may be made.

The term *Composition* is used at Cambridge to denote the translation of English into Latin or Greek, and the term *Translation*, to denote the reverse process of turning Latin or Greek into English.

Grammatical accuracy, simplicity and elegance of style, are the points chiefly to be attended to in *Composition*. With regard to the first, constant practice ripened into habitual precision can alone be relied upon. The others must be acquired by close observation and extensive reading, which alone can familiarize the mind with the modes of thought

and expression of the classical writers. The process of translation from English into Greek or Latin involves the recasting of each sentence, and the presentation of the thought in the shape in which an ancient author would have presented it. A comparison of the original text with Davies and Vaughan's translation of the *Republic* of Plato, or Wright's translation of the *Phædrus*, or Church and Brodribb's translation of Tacitus, or Jebb's translation of Theophrastus, will shew the degree of accuracy required in Prose Composition. Admirable models of Verse Composition will be found in the *Arundines Cami*, the *Sabrinæ Corolla*, the Porson Prize Exercises, and some of the other similar books. Specimens of Translation and Composition are given in a book by Messrs Jebb, Jackson, and Currey. In order to gain the habit of using the vocabulary of an author and storing it up in the memory, that kind of composition should be practised which corresponds to the writings of the author the student is engaged in reading at the time, and before doing an exercise in Composition, a portion of some author similar in style should be read over. The more difficult usages of the Greek and Latin languages, especially the doctrine of the subjunctive mood in Latin, and of conditional and temporal sentences in Greek, should be studied with the help of a good Syntax, such as Madvig's or Goodwin's, in order that the student may thoroughly understand them, and may be able to use them without fear of error.

In Verse Composition it is difficult to gain much skill unless it has been acquired early.

A special lecture is devoted in most of the Colleges to the subject of Composition, and the student will have ample opportunities of practice afforded him by attendance at such lectures.

The student who has not the advantage either of College Lectures or a private tutor, may exercise himself in Composition by translating and retranslating easy passages from Greek and Latin authors, especially Cicero, Livy, Thucydides, and Plato, and by the use of books of verse translations, such as those above named.

Composition should be practised sometimes with, and sometimes without, the aid of Dictionaries. On the one hand much valuable information may be gained by searching for words and expressions in a good Dictionary, and on the other it is absolutely necessary to acquire the habit of self-reliance, as no such aid is allowed in Examinations.

The remarks made above with regard to school-teaching in Composition do not apply to University practice for the Classical Tripos, the preparation for which should generally be confined to rendering passages of English into Greek or Latin. The collections of passages for this purpose contained in Holden's *Foliorum Silvula* and *Centuriæ* and in Kennedy's *Materials for Translation*, or in other books of a similar kind, will be found most useful. Portions of Virgil, Ovid, Horace, Cicero, Thucydides, and Sophocles should be committed

to memory, especially such as strike the mind most in reading.

The question whether the student can spend his time with advantage in writing for the University or College Composition Prizes depends mainly upon the circumstances of each particular case, and upon individual tastes. As, on the one hand, a student who comes to the University with a considerable knowledge of the Classical writers, and a facility for composing, may very profitably employ some portion of his time in writing for prizes; so, on the other hand, it would be injudicious for one who has not had early opportunities for gaining the power of composition, or whose tastes do not lead him in that direction, and who must consequently rely mainly upon extensive reading and exact translation for success, to sacrifice any important part of his studies to such an object. But it may very possibly happen that a subject proposed may fall in with the reading or the taste of the student, and in such a case much interest may be added to his studies by writing upon it, besides the advantages which must always accompany the expression of his thoughts distinctly in writing. Much attention should be paid to the proper arrangement and treatment of the subject, a point in which, now that original Composition is so much less practised than formerly, students are apt to fail. Formal and irrelevant introductions should be especially avoided, and the subject entered upon at once. Compression of matter,

simplicity and perfection of style should be aimed at rather than length, and care must be taken to avoid all extravagance of thought or expression. The successful exercises are always printed, and collections of them may be easily procured in Cambridge. The student should, however, carefully avoid the danger of forming his style upon them, as they are not all by any means worthy of imitation. Recourse must rather be had to the ancient authors themselves, and their spirit and style reproduced as much as possible. In the case of the Greek Ode it is true that no exact model, except the very few fragments of Sappho, exists in ancient literature. Pindar therefore must be studied, and his method of expression and treatment of a subject noted and imitated. Full information on the metre and dialect of Sappho's Odes may be found in page 12 of an *Essay on the fragments of her poetry*, published at Berlin in 1827 by Professor Neue.

It may be mentioned here that it is often the custom for classical students who require practice in Examinations to enter the Examinations for the University Scholarships. The advantages to be derived from this are great, if the student is resolved to give his whole time and attention, while the Examination lasts, to the work of solving the papers. The power of concentrating all the faculties of the mind upon a difficulty, of quickly unravelling intricacies of language, and of composing with facility, will be much strengthened by such practice. The

Examinations for the University Scholarships and those for the Chancellor's Medals, differ from the Classical Tripos Examination chiefly in the superior value attached in them to Composition, and in the original exercises in Verse and Prose required. There is also more variety in the authors from whom passages for translation are selected.

1. *Latin Verse Composition.*

The Examination Papers in Latin Verse Composition generally contain two kinds of Verse. Hexameters and Lyrics are most commonly set together, but sometimes other combinations of Hexameters, Elegiacs, and Lyrics are introduced. Abundant models of these may be found in the *Arundines Cami*, the *Sabrinæ Corolla*, and in Merivale's translation of Keats's *Hyperion*, or Jebb's Greek and Latin Translations. But it cannot be too strongly urged on the student not to trust to such books alone, as *they cannot supply the place of an actual study of the Latin Poets.*

In the case of Lyric Verse the metre is generally left to the taste of the student. The Odes of Horace are the accepted models of this kind of Composition, but the metres used by Catullus are also of great beauty, and deserve careful attention. As a general rule, unless the student is highly skilled in composition, the Alcaic metre should be avoided on account of its peculiar difficulties. The Asclepiad metres of Horace, and some of those used by him in his

Epodes, especially those of the 15th and 16th Epodes, will be found the most generally useful. The Sapphic metre should be avoided, since unless very skilfully handled it becomes intolerably monotonous. In order to cultivate the ear and accustom it to the rhythm of the various metres, portions of the best Latin poets should be committed to memory, and passages of English poetry of similar style should be selected and translated at the same time, in order that the student may accustom himself to make a ready use of the Latin poetical vocabulary, and to imitate the rhythm.

2. *Latin Prose Composition.*

Two passages of English prose are generally given to be rendered into Latin, one from some standard English Historian, the other from some English philosophical work. In the composition of historical Latin prose, Livy is the best model; and it will be found useful to translate and re-translate portions of his history. The style of Tacitus, if imitated without the careful superintendence of a tutor, is apt to lead to affectation and mannerism in writing Latin Prose. For practice in the other kinds of Latin Prose, the philosophical, rhetorical, and epistolary, Cicero's *Tusculan Disputations*, his *De Officiis*, his *De Oratore*, his *Orations*, and his *Letters*, must be studied. The methods by which these writers render their meaning perspicuous, the order in which they

arrange their words, the forms of construction they generally prefer, and the particles used by them in the connexion of sentences, must be particularly noted. Forcellini's *Lexicon* and Madvig's or Roby's *Latin Grammar* may be consulted with great advantage.

To be able to write in a simple and clear yet idiomatic style in Latin Prose, is perhaps the most difficult attainment to which a student^t can aspire, and is but rarely found even amongst the most advanced scholars. The most common faults into which young students are apt to fall are those of mannerism, and its opposite of dull uniformity. The latter fault is certainly the less pardonable in those who have to any extent studied the lively style of the best writers of the Augustan age, but it is nevertheless by far the more prevalent.

3. *Greek Verse Composition.*

The metre required in the Greek Verse Composition Paper is the Iambic Senarius, with the addition occasionally of some short passage for translation into Anapæstic Dimeters, Trochaic Tetrameters, or Homeric Hexameters. The passages are generally taken from the English dramatic writers, but sometimes also from Milton, Spenser, and more modern poets. The rhythm and style of versification of Sophocles are generally considered the most worthy of imitation. Euripides and Æschylus should however be studied in order to acquire a sufficient *copia verborum*. One or two

plays, according to the student's fancy, should be committed to memory.

The attention of the student and most of his practice must be devoted to Iambics, and the other metres should be attempted but seldom. Excellent models of Greek Verse Composition will be found in the Porson Prize Exercises, and in the *Sabrinæ Corolla*. A useful account of the Iambic metre and some practical hints concerning it, with progressive exercises, is to be found in the introduction to the *Shrewsbury Greek Verses*.

4. *Greek Prose Composition.*

As in the Latin, so in the Greek Prose Composition Paper, two passages of English are generally given to be rendered into Greek. These passages are sometimes purely narrative, sometimes oratorical, and sometimes philosophical. The styles of Thucydides and Demosthenes, and of Plato must be severally cultivated. The copious and varied phraseology of Plato, and his delicate shades of expression, must be carefully noted and applied.

With beginners in Greek Prose Composition it is a common error to suppose that the rules of Latin Prose apply to Greek, especially in the order of words, in the use of the relative pronoun, of participles, and of the genitive absolute or the ablative case. The difference between Latin and Greek in these respects must therefore be attended to. Perfection in this kind of composition can only be gained by wide and continuous reading of large masses of the

best Greek Prose authors, but it is perhaps the most attainable of all the kinds of Composition, by those who have not had the advantage of good early training, and therefore should be carefully cultivated by such students.

Translation Papers.

The translations are required to be strictly literal, so far as is consistent with elegant and idiomatic English. The translation of the *Republic* of Plato by Davies and Vaughan, or that of the *Phædrus* of Plato by Wright, or of the *Orations against Aphobus* by Kennedy, or of the poem of *Lucretius* by Munro, or of the *Histories and Annals of Tacitus* by Church and Brodribb, or of *Theophrastus* by Jebb, or the book of translations by Jebb, Jackson and Currey, may be taken as examples of the best style of rendering. For translating the Prose writers, the student requires a copious vocabulary, and some knowledge of the styles of the best English authors of history and philosophy. In the translation of poetry it is not generally advisable to attempt rhymes or a metrical version. As was remarked in the case of Composition, the object here should be to present the sense of the whole passage in an English form. All affectation or forced imitation of the peculiarities of any English writer should be avoided, and the translation made to flow as naturally as possible. In endeavouring to discover the true meaning of any difficult passage, the student must be careful to determine not only

the strict grammatical construction and usage of each of the words, but also to avail himself of the sense indicated by the preceding and following context: by applying both of these methods of arriving at the interpretation, many passages which would prove unintelligible, were one method alone used, will be made clear. Constant practice in Translation is not so necessary as careful and extensive reading, and the acquirement of a copious English vocabulary; but for a few weeks previous to Examination practice should be constantly kept up, by means of College Examinations or by the help of a private tutor, in translating difficult passages separated from their context, in order to acquire quickness in seizing the writer's train of thought and to gain a readiness of expression. Before beginning to write each passage should be carefully read over two or three times, the drift of the whole clearly seen, and the point of each sentence and its bearing upon the subject carefully considered.

Particular attention should be paid to the first few sentences in each passage, as mistakes are very liable to be made in them from want of the clue furnished by the previous context. An effort must be made to comprehend the exact point from which the writer has viewed his subject, to perceive clearly the connexion of thought, and the structure of each sentence, and to express the particular shade of meaning in each word as modified by its context.

In reading an author it must always be remembered that the object to be kept in view is not so

much to 'load the memory with interpretations of difficult passages, or the meaning of uncommon words, as to familiarize the mind with the language and mode of expression, and to gain such a power of unravelling intricate and abstruse trains of thought, as shall enable the student to translate with facility and accuracy detached passages which he has not read previously.

A scholar of extensive reading will often find that he has not previously seen many of the passages given in the Examination, and therefore the student must read, not with the immediate prospect of finding the same passages in the Examination, but in order to accustom his faculties to the strain of making out the meaning of hard passages without the aid of notes or a dictionary. For this reason it is not well to lean too much upon the assistance of notes or translations, except in the case of *recondite* allusions, or in confirmation of an opinion previously formed from the text alone. The student is recommended in reading to have two copies of his author, one containing the text alone, the other with explanatory notes, or a translation. The text alone should be first read with a dictionary and grammar, and any difficulties which seem insurmountable, grammatical peculiarities, or allusions, marked with a pencil. Many of these will probably be explained in further reading by subsequent passages, but for such as remain unsolved a translation or notes may be used.

Much assistance in learning how to translate

may be derived from lectures. For this purpose the student should carefully remark the method of translation used by a University Professor, or by his College lecturer, who will generally be a tutor of considerable experience, and endeavour to imitate it. The lectures of the Greek and Latin Professors may be attended with great advantage to the student, not only for the amount of information to be gained, but also as a means of forming a good style in translation.

Questions on the subject-matter, and on the more important points of philology involved in the passages given for translation, are attached to the papers. These must be prepared for by careful study of the history and philology connected with each author. The candidate should however always finish the translations before attempting any of the questions. On this point, and in appending notes to his translations, the student must exercise his own judgment, as it is impossible to give any rules which will apply to all cases. In the following directions the books which are particularly recommended are marked with an asterisk.

1. *Latin Prose Translations.*

The authors from whose works passages will probably be taken for Examination in Latin Prose Translation are Livy, Cicero, Tacitus, Cæsar, Sallust, Suetonius, Pliny the elder, Pliny the younger, Quintilian, Velleius Paterculus, Seneca the philosopher, and Cornelius Nepos.

The authors of most importance among these with regard to the Examination are Livy, Cicero, and Tacitus.

The parts of *Livy* most generally read are the first Decad and the 21st and 22nd books. Arnold's or Schwegler's (German), or Ihne's or Mommsen's history should be read at the same time. The early history of Rome is most completely discussed in Sir G. C. Lewis's work on *The Credibility of Early Roman History*. The opposite view may be seen in Dyer's *History of the Roman Kings*, but perhaps the most fair and lucid statement of the various questions which arise is to be found in Ihne's *Roman History*. The best annotated edition of Livy is Drakenborch's, but his notes are too cumbrous for general use. Madvig's text, and Weissenborn's (German) notes, will be found most convenient. Bekker's text with short notes by Raschig is also a convenient edition. An excellent edition of the first Book of Livy with notes and a valuable introduction has recently been published by Professor Seeley, and a treatise on Livy's style by Kuhnast may be found useful to those who can read German.

The text of *Cicero* by Nobbe, or Klotz, or Baiter and Kayser, should be used; Ernesti's *Clavis* or Nizolius' *Lexicon Ciceronianum* is a useful book. The following will be found, with *Zeller's *Epicureans, Stoics, and Sceptics*, useful annotated editions of the separate works usually read. *Madvig's *De Finibus*, Kühner's *Tusculanæ Disputationes*, the German editions of Cicero's works in Weidmann's

Berlin series, Görenz's *Academica*, *Halm's *Orations*, Beier's *De Officiis*, Ellendt's *De Oratore*, Moser and Creuzer's or *Mayor's *De Nat. Deor.*, Mayor's *Second Philippic*, Ramsay's *Pro Cluentio*, the Commentary of *Paulus Manutius on the Epistles, or Billerbeck or Boot's editions, or Hofmann and Andresen's selections (German), Stinner's pamphlet on the style of Cicero's letters, Oppeln, 1879. The whole of the orations have also been edited with notes in the *Bibliotheca Classica*. Abeken's *Life and Letters of Cicero*, Middleton's or Forsyth's *Life of Cicero*, Watson's select *Letters of Cicero*, and Whewell's *Lectures on the History of Cicero's Philosophy*, may also be read with advantage.

The best annotated edition of *Tacitus* is that of *Orelli. Jacob's (French), Hachette, Paris, and Nipperdey's (German), notes are good. The translation of Church and Brodribb is useful, though not to be implicitly relied on. The parts of Tacitus most generally read are the first few books and the 13th and 14th of the *Annals*, and the first two books of the *History*, and the *Agricola* and *Germany*. Merivale's *History of the Roman Empire* should be read *pari passu* with this author. Boetticher's *Lexicon Taciteum* and Dräger's treatise on the syntax and style of Tacitus are also useful. An edition of the *Annals* with notes has been lately published by Frost. The best text is that of Halm published by Teubner in 1876. Gantrelle's, *Style de Tacite*, Garnier Paris, 1874, is useful.

2. *Latin Verse Translations.*

The authors in this division from whom passages may probably be proposed for Examination are very numerous, comprising Plantus, Lucretius, Catullus, Virgil, Horace, Ovid, Juvenal, Propertius, Tibullus, Persius, Martial, Lucan, Statius, Ennius, Phædrus, Plautus and Terence. Portions of all these writers, except Phædrus, Statius, Ennius and Tibullus, must be studied. The most important are Plautus, Lucretius, Virgil, Horace, and Juvenal. Two or three books of Lucretius and a few plays of Plautus should be known, and if possible the whole of Virgil, Horace, and Juvenal. The best texts of the two first-named authors are Munro's Lucretius, and Ritschl's or Fleckeisen's Plautus. The notes of Lindemann or Gronovius or Lambinus on Plautus, Conington's or Forbiger's Virgil, *Orelli's Horace, *Mayor's Juvenal, and *Munro's or *Lachmann's Lucretius, should be used. Thornton's translation of Plautus is useful, and Pareus' *Lexicon Plautinum*. On the metres of Plautus and Terence, a subject of some difficulty, Ritschl's prolegomena to the *Trinummus*, Wagner's prefaces to the *Aulularia* and to his edition of Terence, and Bentley's introduction to Terence, are the best authorities. With respect to the remaining authors the most commonly studied parts of Ovid are the *Fasti* and *Heroides*. The best annotated editions of the *Fasti* are Merkel's and Paley's. Conington's or *Jahn's Persius, Hertzberg's Propertius, Doering's Catullus, Weber's or

Weise's Lucan, and Wagner's Terence, will be found useful. The notes on Martial's *Epigrams* in the common variorum edition should be used. An edition of selected epigrams with notes has also been published by Paley and Stone. The whole of Propertius, Catullus, and Persius, may be read. The first book of Lucan's *Pharsalia* is the most worth reading. The fragments of Ennius have lately been edited in a collected form by Vahlen.

3. *Greek Prose Translations.*

A greater extent of reading is necessary in Greek than in Latin Prose. The Greek Prose authors from whose writings passages have hitherto been extracted for Classical Examinations have been Herodotus, Thucydides, Xenophon, Demosthenes, and the other Attic orators, Plato, Aristotle, Theophrastus, and Longinus.

The most important of these authors to the candidate for Classical Honours is *Thucydides*. To appreciate and thoroughly understand this prince of historians requires no mean amount of Greek scholarship. The best annotated edition is *Poppo's smaller edition, Arnold's edition is valuable for the historical and geographical remarks contained in the notes, and Göller's and Krüger's (German) editions for the grammatical observations and parallel passages quoted in them. Bloomfield's edition is useful only for the quotations in the notes from later authors who have imitated Thucydides. Some excellent grammatical notes on the first book of

Thucydides have been published by Mr Shilleto. There are several translations of Thucydides into English, but none which can be entirely relied upon for scholarlike accuracy. The versions of Hobbes and Dale are the best. *Grote's, Thirlwall's, or Curtius' *History of Greece* should always be read *pari passu* as most valuable historical commentaries on Thucydides. The difficulties to be encountered by the student in translating this author are such as will try his scholarship and powers of comprehension and expression to the utmost, and these difficulties do not occur less frequently in the narrative than in the speeches. The student should therefore on no account be induced to believe that it is only necessary to read the speeches in Thucydides, as is sometimes imagined.

The best annotations on *Herodotus* are those of Krüger and Abicht (German) and Bähr, Gaisford, or Schweighauser. One of these, with the text of Bekker, and Rawlinson's translation and notes, will be found sufficient. A good deal of information and criticism relating to this author will be found in Dahlmann's *Life of Herodotus*, *Mure's *History of Greek Literature*, and Grote's *History of Greece*.

The following orations of Demosthenes are commonly read. The *De Falsa Legatione*, with *Shilleto's notes, the *Midias*, edited by *Buttmann, the *De Corona*, in Drake's edition, with the speech of Æschines on the same subject, and a good translation published by Mr Norris a few years ago, the orations against Aphobus, with an admirable

translation and notes by *Kennedy, the *Androtion*, *Phormio*, *Zenothemis*, *Aristocrates*, and *Nicostratus*. Dindorf's collection of notes and Mitchell's Indices will be found useful. Sandys and Paley's Private Orations of Demosthenes with notes, may be recommended. The student should carefully observe the terms of Attic law occurring in the private orations. The necessary information on this subject will be found in Meier and Schömann's work on the method of procedure in the Attic courts. Arnold Schäfer's *Demosthenes und seine Zeit* contains an account of the circumstances under which each speech was delivered. It is not necessary to read any of the other Attic orators if Demosthenes be carefully studied.

Passages from the following dialogues of Plato may probably be set in the first part of the Classical Tripos Examination. The *Phædrus*, *Theætetus*, *Gorgias*, *Protagoras*, *Phædo*, *Apology*, *Sophistes*, *Politicus*. The *Phædrus* with *Wright's translation and *Thompson's notes, the *Theætetus* with Campbell's notes, the *Gorgias* with Cope's Introduction and translation, and with Stallbaum's and *Thompson's notes, the *Protagoras* and *Phædo* with Wagner's notes, the *Republic* with *Davies' and Vaughan's translation the *Apology* with Ridell's notes, the *Sophistes* and *Politicus* with Campbell's notes. Some parts of the *Rhetoric* and *Ethics* of Aristotle may be set, but Aristotle will as a rule be reserved for the second examination.

The remaining Greek Prose writers, Xenophon,

Theophrastus, and Longinus, are not of sufficient importance with reference to the Examination to occupy much of the student's time. An excellent edition of *Theophrastus with translations and notes has been published by R. C. Jebb.

4. *Greek Verse Translations.*

The authors from whose works passages of Greek Verse will probably be selected are Homer, Hesiod, Æschylus, Pindar, Sophocles, Euripides, Aristophanes, Theocritus, Bion, the Homeric Hymns, the Greek Anthology, and the Comic Fragments.

The parts of *Homer* usually read are the first six and the last six books of the *Iliad*, and from the 5th to the 12th Book of the *Odyssey*. In reading Homer explanatory notes are not so much required as a good Lexicon, the difficulty being chiefly in the meaning of words, and not in intricacy of construction. The most convenient notes on the *Iliad* are those in Heyne's smaller edition, published at Oxford in 1834; Dubner's French edition, the German edition of Fäsi, and Spitzner's or Bothe's or Paley's notes are also useful. Löwe's edition of the *Odyssey* is the most convenient, but the notes of Ameis (German) are much better. The notes of *Nitzsch on the *Odyssey* have not been translated from the German, and extend over twelve books only. Prof. Mayor has edited the IX—XII books of the *Odyssey* with notes, and an English edition of the *Odyssey* has also been published by Dr Hayman. *Buttmann's *Lexilogus*, and his *Cata-

logue of Irregular Greek Verbs, are invaluable for the student of Homer. Döderlein's *Homerisches Glossarium*, Seber's Index, and *Damm's *Lexicon Homericum*, are also very useful. The last serves as an index, and brings together all the passages in which a word occurs, so that the student can compare its different significations. The most complete and impartial discussion of the questions which relate to the Homeric poems will be found in *Mure's *History of Greek Literature*.

The poems of *Hesiod* have been lately edited by Mr Paley, and should be studied either in his edition or Van Lennep's. It is desirable that the student should become acquainted with them, as a knowledge of Homer will not always enable him to translate Hesiod.

Pindar should be studied with the aid of *Disсен's Notes, or Dr Donaldson's or Fennell's edition. The style of translating Homer and Pindar should be as near as possible to that of the authorized version of the Old Testament Prophets.

Paley's editions of *Æschylus* and *Euripides* are the most generally useful. The plays of most importance are the *Agamemnon*, the *Prometheus Vinc-tus*, the *Eumenides*, the *Hecuba*, *Orestes*, and *Phœnissæ*, with Person's notes, *Elmsley's *Medea* and Sandys' *Bacchæ*, the *Hippolytus*, *Alcestis*, *Ion*, *Andromache*, and *Helena*.

The whole of *Sophocles* ought to be read, with the notes of Wunder, Schneidewin or *Hermann; and the *Ajax* and *Electra*, with *Jebb's admirable

notes. Bishop Thirlwall's *Essay On the Irony of Sophocles*, in the *Philological Museum*, *Ellendt's *Lexicon Sophocleum*, and Campbell's *Introduction*, are extremely useful.

The most useful edition of Aristophanes is that of Bekker with the scholia and 'variorum' notes attached. The best text without notes is Meineke's, published by Tauchnitz at Leipsic. Dindorf's text with scholia and notes is useful. The plays usually read are the *Vespæ*, the *Aves*, the *Ranæ*, the *Equites*, the *Nubes*, the *Pax*, and the *Acharnenses*. There are many good editions of single plays. Among these may be mentioned the *Vespæ* and *Pax* by Richter, the *Nubes* by Hermann, the *Nubes*, *Equites*, and *Ranæ*, by Kock (German), the *Lysistrata* and *Thesmophoriazusæ* by Enger. *Elmsley's edition of the *Acharnians* is excellent, and by no means out of date. Some admirable notes on the *Acharnians* by W. G. Clark have been printed in the *Cambridge Philological Journal*, 1879. Mitchell is better as a translator than as an editor, but deficient in scholarship. The best translations are those by *Frere and Walsh, and a translation of the *Clouds*, published anonymously by Macpherson, Oxford, 1852.

The student should be well acquainted with the dialect and style of Theocritus. The best editions of his *Idylls*, with explanatory notes, are those of Wuestemann, Paley, and Fritzsche. The difficulty in this author, as in Homer, chiefly consists in determining the meaning of words, and not in complexity of construction.

It will be found best not to read more than two authors at the same time, even when the whole of the student's time can be devoted to them, and, during Term time when lectures have to be attended, one will be found quite sufficient if thoroughly studied and digested. The proposed course may be either shortened or lengthened considerably by varying the amount of each author read. While on the one hand some students will feel that they can make most progress by reading large masses of an author, others will be inclined to content themselves with a small amount thoroughly and familiarly known. The former plan, if too exclusively pursued, is apt to lead to inaccuracy, and the latter to narrow scholarship. The best course is to combine the two methods. Certain portions of the principal writers should be familiarly known, but large masses should also be read through continuously, in order to accustom the mind thoroughly to the modes of thought and style of the authors studied. Nothing should be so much guarded against as hasty and perfunctory reading. For although a wide range of study will in many cases enable the student to enter into the spirit of the ancient writers more fully, yet it must always be borne in mind that the demand in the translation papers is not so much for wide knowledge as for practical skill in handling the languages, delicacy of taste in discerning their beauties, and accuracy in translating. It is here that the chief difference between the first and

second parts of the Classical Tripos chiefly lies. In the first part scholarship is encouraged as distinguished from special learning. The main demand is for skill in interpreting, translating, and writing Greek, Latin, and English.

Special and technical learning cannot be expected from a student at the age at which the first examination of the Classical Tripos is proposed to him, and therefore the best educational test is that which ensures a sound foundation for future acquirements to rest upon. The accurate scholar always has the power of acquiring extensive learning, while he who is not a good scholar can never attain to solid learning. But when accuracy of scholarship has been acquired, it is then most desirable that students should have wider ranges of study and research such as those proposed in the second examination opened to them, and should be encouraged to make use of the accomplishment they have acquired. Professor Smyth, in his first Lecture on History, has the following remarks upon this subject: "With respect to the Classical writings of antiquity, I must digress for a moment to observe, that it is one thing to know their beauties and their difficult passages, and another to turn to our own advantage the information they contain. It is one thing to enrich our imagination and form our taste; it is another to draw from them the materials of our own reasonings, to enlarge our knowledge of human nature, and to give efficacy to our own labours by observing the images

of the human mind as reflected in the mirrors of the past. He who is already a scholar should endeavour to be more: it is possible that he may be possessed of treasures which he is without the wish or the ability to use."

Question Papers.

For the papers of questions on Greek and Roman history, literature and antiquities the following standard works, besides those mentioned above under the head of translations, may be found useful.

Böckh's *Public Economy of Athens*, Schömann's *de Comitiis Atheniensium*, Donaldson's *Cratylus* and *Varronianus*, Hand's *Tursellinus*, Müller's *History of Greek Literature*, Niebuhr's *Roman History* and *Lectures*, Bernhardt's *Grundriss der Griechischen und Lateinischen Literatur*, Teuffel's *History of Roman Literature*, Cruttwell's *History of Roman Literature*, Fischer's *Zeittafeln*, Clinton's *Fasti*, Veitch's *Irregular Greek Verbs*, Müller's *Dissertations on the Eumenides*, Donaldson's *Theatre of the Greeks*, Hermann's *Political Antiquities*, Merivale's *Fall of the Roman Republic*. The Dictionaries of Antiquities, of Biography, and of Geography by Dr Smith. Wordsworth's *Athens and Attica*, Burn's *Rome and the Campagna*, and *Old Rome*. Dyer's *Pompeii*. Ramsay's *Roman Antiquities*. Rich's *Dictionary of Greek and Roman Antiquities*. Becker's *Römische Alterthümer*. The best Atlas is that of Spruner, or Kiepert's smaller one. The best Latin Grammars are Madvig's and

Roby's, the best Greek Grammars Donaldson's, Goodwin's or Matthiæ's, with Madvig's Greek Syntax. The best Greek Lexicons are Rost and Palm, or Liddell and Scott. The best Latin Dictionary Forcellini's, or the smaller dictionary of Lewis and Short, Oxford, 1879. Lexicons adapted to particular authors, if they can be had, such as Boetticher's or Gerber's *Lexicon Taciteum*, or Schweighauser's *Lexicon Herodoteum*, should be used in preference to general Lexicons.

An excellent list of the best editions of classical authors will be found in J. B. Mayor's *Guide to the choice of Classical Books*, Bell and Co., and in Prof. Mayor's *Bibliographical Clue to Latin Literature*.

The examiners are instructed to arrange the names of those who pass the above examination with credit in three classes, each class to consist of one or more divisions. Each division is to contain one or more names, and when more names than one are so contained they are to be arranged in alphabetical order.

Second part of the Classical Tripos Examination.

A Student may be a candidate for Honours in the second part of the Examination for the Classical Tripos, if at the time of such examination he be keeping his eighth term at least, having previously kept seven terms, provided that twelve complete terms shall not have passed after the first of the said seven terms. Provided further that he shall have already obtained honours in the first part of the Classical Tripos Examination.

No Student may present himself for both parts of the examination for the Classical Tripos in the same year.

A Student who shall pass the second part of the Examination for the Classical Tripos not earlier than his eighth term at least, or later than his thirteenth term at most, is entitled to admission to the degree of Bachelor of Arts, provided that he has kept the requisite number of terms at the time when he applies for such degree.

The time for this examination to commence is fixed on the Monday after the last Sunday in May in each year.

The names of those students who pass the second part of the Classical Tripos Examination with credit are to be placed in three classes arranged in alphabetical order. Marks will be affixed to the names in the first class shewing the subjects in which the students have passed and also those in which they have passed with special distinction.

The second part of the Classical Tripos Examination is intended for those students who wish to shew a special and technical knowledge of some of the higher branches of classical learning. Such students therefore after having proved that they are sound scholars in Greek and Latin by passing the first part, and also section A in the second part of the Classical Tripos Examination, will be allowed to offer for examination one or two, but not more than two of four other sections of examination, viz. Philosophy, History, Archæology and Philology.

SECTION A.

Each candidate must therefore first offer himself for examination in Section A. This consists of four papers in higher classical scholarship, one in Latin prose composition, one in Greek prose composition, a third in translation from Latin into English, and a fourth in translation from Greek into English. These papers will be of greater difficulty than those set in the first part of the examination, but the remarks given above on translations and composition will apply to them, with the exception of those referring to verse composition, which is not included in section A.

The set subjects for Sections B, C, D and E, and the books recommended for the examination in 1882, will be found in the *Cambridge University Reporter*, No. 338, p. 586.

SECTION B. *Ancient Philosophy.*

In this section there are to be five papers of three hours each.

A list of selected works of Plato and Aristotle or of other authors is to be issued from time to time by the Classical Board, to be studied by candidates for Honours in this section. The selected books are not to be so numerous as to preclude the student from the general study of ancient philosophy.

One paper is to contain passages for translation selected from philosophical works, Greek or Latin

or both, other than those appointed by the Board, together with questions on the subject-matter of such passages or arising out of them.

Three of the papers are to contain questions upon the works appointed by the Board, and also upon other ancient philosophical works, and upon ancient philosophy in general, with short passages for translation.

One paper is to consist of alternative subjects for an English Essay such as fairly to represent the field of work included in the section.

A candidate is not to be refused a place in the first class for the sole reason that he has omitted to study one or more of the appointed books.

For the study of Ancient Philosophy in general the following works may be used with advantage. Ritter and Preller's *Historia Philosophiæ ex fontium locis contexta*. Zeller's *Die Philosophie der Griechen*. Ueberweg's *Outlines of Ancient Philosophy*, and Schweigler's *Geschichte der Griechischen Philosophie*.

The London edition of Plato's works published in 1826 by Valpy with variorum notes is serviceable.

Archer Butler's *Lectures on Ancient Philosophy* with Thompson's notes should be read, and the chapter in Grote's *Grecian History* upon the Sophists with Cope's and Sidgwick's criticisms upon it in the *Journal of Philology* and the *Journal of Classical and Sacred Philology*. Grote's *Plato and Companions of Socrates* with Mill's criticisms in his dissertations.

The books which have been generally used at Cambridge for the study of Aristotle have been Michelet's or Sir A. Grant's *Commentaries on the Ethics*, to which may be added H. Jackson's edition of the 5th book of the *Nicomachean Ethics*, Grote's and Lewes's *Aristotle* and Spengel's *Rhetoric of Aristotle*.

Lists of other works on Plato and Aristotle and on ancient philosophy will be found in J. B. Mayor's *Guide to the choice of Classical Books*.

SECTION C. *History.*

In this section there are to be five papers of three hours each.

One paper is to contain general questions on Greek and Roman history, political, constitutional, social and literary. References to ancient authorities will be expected. From time to time the Board of Classical Studies is to determine the chronological limits of this paper.

One paper is to include questions on a special period of Greek History, to be determined from time to time by the Board of Classical Studies. Candidates will be expected to shew a knowledge of the ancient authorities by translating and interpreting passages from their works or from inscriptions.

One paper is to include questions on a special period of Roman History, in which candidates will be required to shew a knowledge of ancient authorities and inscriptions.

One paper is to contain questions on Greek and Roman Law in its historical development. The Board is to determine from time to time the chronological limits of these questions, and also to select certain ancient writings bearing upon Law from which passages will be set for explanation.

One paper is to contain alternative subjects for an English Essay representing the several departments of this section.

No candidate is to be refused a place in the first class for the sole reason that he has omitted to study one or more of the appointed books.

The special books which will have to be studied for Section C will depend of course upon the periods marked out by the Classical Board. See *Cambridge University Reporter*, No. 338, p. 586. Lists of such books upon special parts of history, as well as of those in which the subject of ancient history is treated generally, will be found in J. B. Mayor's *Guide to the choice of Classical Books*, Messrs G. Bell and Sons, London. Books on Ancient Law are also mentioned in that Guide, p. 44.

For the Essay the following will be found useful. Conington's *Miscellaneous Works*. Sel- lar's *Roman Poets*. Nisard's *Poètes Latins*. Symond's *Studies of Greek Poets*.

SECTION D. *Archæology*.

In this section there are to be five papers of three hours each.

1. One paper is to contain questions on the

history of art and of the lives and works of artists in the ancient Greek and Roman world.

2. One paper is to be on (α) the mythologies and religious beliefs and (β) the religious usages and ceremonies of the ancient Greeks and Romans.

3. One paper is to be on a group or class of monuments or a special site or district of the ancient Greek or Roman world, to be from time to time determined upon by the Board of Classical Studies.

4. One paper is to be on the art and handicraft and the inscriptions of the ancient Greeks and Romans in relation to their national and domestic life.

In the above four papers knowledge of ancient authorities and of extant monuments will be tested. Passages for translation and inscriptions and representations of ancient monuments will be set for interpretation, identification and discussion.

5. One paper is to contain alternative subjects for an English Essay representing the departments of this section.

Lists of modern authorities on Archæology, and of portions of ancient writers recommended for study, are to be published from time to time by the Board of Classical Studies.

Distinction may be obtained in this section by a thorough knowledge of a part.

Lists of books on Ancient Geography, Topography, Antiquities, Art, Mythology and Religion will be found in the *Cambridge University Reporter*, No. 338, p. 587.

SECTION E. *Language.*

This section is to include (exclusive of the English Essay hereafter to be mentioned) four papers of three hours each.

(1) One paper is to contain (a) Questions on Greek etymology, and the history of the Greek dialects, with illustration from inscriptions or other sources: (β) Questions on Greek syntax, together with passages from Greek authors for translation, comment, or emendation: (γ) Questions on the etymology and usages of the Greek and Latin languages as compared with one another.

(2) One paper is to contain (a) Questions on Latin etymology and the history of the cognate Italian dialects with illustration from inscriptions or other sources: (β) Questions on Latin syntax together with passages from Latin authors for translation, comment, or emendation: (γ) Questions on the etymology and usages of the Greek and Latin languages as compared with one another.

(3) One paper is to contain (a) Simple questions on Sanskrit grammar, with special reference to those forms which illustrate the history of the Greek and Latin languages: (β) Easy passages from selected Sanskrit authors for translation and comment.

A candidate shall not be debarred from obtaining a place in the first class for the sole reason that he has omitted to take this paper.

A knowledge of the characters of the Sanskrit alphabet shall in no case be required.

(4) One paper is to contain (a) General

questions on the comparative grammar of the Indo-European languages, with special reference to the Greek and Latin languages: (β) Questions on the history of Alphabets: (γ) Questions on some selected portion or portions of the comparative grammar of the Indo-European languages, which the Board shall from time to time define either by suggesting the books to be read or otherwise.

No Essay shall be set in this section: but any candidate shall be at liberty to send up (a fortnight before the Examination begins) an English Essay on some subject comprised in this section, upon which Essay he shall be examined *viva voce*, at such time and in such manner as the Examiners shall decide.

Lists of books upon the various parts of this section will be found in *Mayor's Guide to the choice of Classical Books*. The progress of philological study has been so rapid of late years that new books containing elucidations and classification may constantly be looked for.

Selected Subjects and Books.

The Board of Classical Studies has published the following lists of selected subjects and books for Sections B, C, D, E, of the Second Part of the Classical Tripos Examination to be held in the Easter Term of 1882.

SECTION B.

The selected works for the Classical Tripos Examination of 1882 are:

Aristotle, *Analytica Posteriora* and *De Anima*.
Plato, *Sophist*, *Timæus*, *Laws* B. x.

SECTION C.

1. The questions in the general paper on Greek and Roman History will be limited as follows: in Greek history to times not later than 146 B.C., in Roman history not later than 180 A.D.

2. The period of Greek history appointed for the special paper in the Classical Tripos Examination of 1882 is from the death of Hipparchus to the death of Pericles.

3. The period of Roman history appointed for the special paper in the Classical Tripos Examination of 1882 is from the tribunate of Tiberius Gracchus to the death of Julius Cæsar.

4. (a) The general questions on Law will be limited, in the case of Greek law, to times not later than the death of Demosthenes; in that of Roman law, not later than the death of Augustus Cæsar.

(β) The ancient writings bearing upon law, upon which questions will be set in the Classical Tripos Examination of 1882, are as follows:—

Greek, the speeches of Isæus, and those of Demosthenes against Macartatus and Leochares.

Roman, the speeches of Cicero in *Q. Cæcilium divinatio*, in *C. Verrem actio prima*, *pro Cluentio*, and *pro C. Rabirio perduellionis reo* (in connexion with the history of *iudicia publica*).

SECTION D.

The special subjects for Section D. 3 in the Classical Tripos Examination of 1882 are:

(1) The *Parthenon*.

(2) The *Forum Romanum*, its existing monuments and the sites of those no longer remaining.

The following modern books are recommended as indicating the general range of the subjects included in this section:

Müller K. O., Ancient Art and its remains, with *Müller* and *Wieseler*, Denkmäler der alten Kunst. *Brunn*, Geschichte der griechischen Künstler. *Preller*, Griechische Mythologie, römische Mythologie. *Hermann K. F.*, Lehrbuch der griechischen Antiquitäten ed. Stark (Parts II. and III.). *Marquardt* and *Mommsen*, Handbuch der römischen Alterthümer (Parts VI. and VII.).—*Freund's* Triennium philologicum, Part VI., contains a general sketch of ancient art and of the materials for its study.

The following modern books are also recommended as useful for purposes of reference or special study :

For Paper (1). *Schnaase*, Geschichte der bildenden Künste, Vol. II. *Overbeck*, Geschichte der griech. Plastik. *Stark*, Handbuch der Archäologie der Kunst. *Woltmann* and *Woermann*, History of Painting, Vol. I., edited by Prof. Colvin. *Friederichs*, Berlins antike Bildwerke. *Helbig*, Campanische Wandmalerei. *Gerhard*, Auserlesene griechische Vasenbilder. *Jahn O.*, Münchener Vasensammlung (Preface). *Bötticher*, Die Tektonik der Hellenen. *Boutmy Em.*, Philosophie de l'Architecture. *Urlichs*, Skopas.

For Paper (2). *Murray A. S.*, Manual of My-

thology. *Maury*, Histoire des Religions de la Grèce antique. *Mommsen A.*, Heortologie.

For Paper (3). *Wordsworth*, Athens and Attica. *Wachsmuth*, Die Stadt Athen. *Beulé*, l'Acropole d'Athènes. *Michaelis*, Der Parthenon. *Petersen*, Kunst des Phidias. *Lloyd W. W.*, The Age of Pericles. *Leake*, Topography of Athens. *Burn R.*, Rome and the Campagna, and Old Rome.

For Paper (4). *Becker*, Charikles and Gallus. *Guhl and Koner*, Das Leben der Gr. und Röm., transl. by Hueffer. *Rich*, Dict. of Rom. and Gr. Ant. *Daremberg and Saglio*, Dict. des Ant. *Birch*, Ancient Pottery. *King*, Antique Gems and Rings. *British Museum*, Select Greek Coins, and series of Guides. *Lenormant*, La Monnaie dans l'antiquité. *Mommsen Th.*, Histoire de la monnaie Romaine (ed. Duc de Blacas). *Kirchhoff*, Geschichte des griechischen Alphabets. *Franz*, Elementa epigraphices Græcæ. *Wilmanns*, Exempla inscriptionum Latinarum.

The following works of ancient authors are recommended as essential for reference or special study :

Pausanias. *Strabo*. *Pliny*, Nat. Hist. xxxiv. and xxxv. (Ulrichs' Chrestomathia, pp. 271 ff.). *Philostratus*, Imagines ; and *Callistratus*, Statuæ. *Vitruvius* (especially the Prefaces).

A complete collection of passages of ancient authors bearing on the lives and works of artists is given in *Overbeck*, Antiken Schriftquellen.

The subjects of this section should also be studied in portions of Greek and Roman general literature, such as the following :

CLASSICAL TRIPOS.

Anthologia Græca (with Benndorf, De epigrammatis quæ ad artes spectant). *Lucian*, Herodotus, *Imagines*, Zeuxis. *Varro*, Ling. Lat. v. §§ 41—55. *Propertius*, the last two books. *Statius*, *Silvæ*. *Pliny*, Ep. II. 17 and v. 6. *Tertullian* de Spectaculis. *Calpurnius*, Ecl. VII.

SECTION E.

For papers 1, 2, 4, the following books are recommended to be studied (in addition to the grammars in ordinary use):

Curtius, *Griechische Etymologie* (tr. Wilkins and England), especially Book III.

Ahrens, *de Græcae Linguae Dialectis*. The papers on this subject in Curtius *Studien zur griechischen und lateinischen Grammatik* should also be referred to.

Cauer, *Delectus Inscriptionum Græcarum*.

Corssen, *Aussprache Vokalismus und Betonung der lateinischen Sprache*.

Peile, *Introduction to Greek and Latin Etymology*.

Wordsworth, *Fragments and Specimens of Early Latin*.

Corpus Inscriptionum Latinarum, Vol. I. pp. 1—127. (Students who cannot easily obtain access to this book may find nearly all the inscriptions in Wilmanns' *Exempla Inscriptionum Latinarum*.)

Schleicher's *Compendium der vergleichenden Grammatik* (tr. Bendall, so far as Greek, Latin and Sanskrit are concerned).

Curtius, *das Verbum der griechischen Sprache* (tr. Wilkins and England).

Kirchhoff, *Geschichte des griechischen Alphabets*, or Fabretti, *Palaeographische Studien* (tr. from the Italian). Corssen, *Aussprache, &c.*, Vol. i. pp. 1—29 (on the Latin Alphabet).

Cobet, *Variae Lectiones, Novae Lectiones*.

Madvig, *Adversaria Critica, Liber I*.

The special subject of paper 4 (γ) in the Examination of 1882 is :

The history of the origin and use of the “infinitive” and the cognate forms.

The following books are especially useful for this subject :

Jolly, *Geschichte des Infinitivs im Indogermanischen*.

Wilhelm, *De inf. linguarum sanscr. bactr. pers. gr. osc. umbr. lat. got. forma et usu*.

In paper 3 the following will be examined upon :

Story of Nala, books i.—xii. inclusive (ed. Jarrett).

Rigveda, Hymns iv. 46, v. 26, v. 30, v. 82, vi. 53, vi. 54, ii. 28, iii. 61, iv. 36.

[These hymns are respectively 15, 20, 21, 22, 24, 25, 6, 13, 14 in Delbrück's *Vedische Chrestomathie*.]

Chancellor's Medals.

Two Medals are given by the Chancellor of the University of Cambridge every year for the encouragement of Classical learning.

It is now possible for any student who is qualified to be a candidate in the Classical Tripos to be also a candidate for the Chancellor's Medals in the same year. In addition to the names of the Medallists, the Examiners are required to publish an alphabetical list of those candidates who have highly distinguished themselves in the Examination. An opportunity is thus offered to any student who from temporary ill health or other impediment during the Tripos Examination has been unable to do justice to his attainments, of proving his proficiency in classical learning.

The examination differs in some respects from that of the Classical Tripos, as will be seen from the following notice issued by the Examiners on November 27, 1871: "The Examiners for the Chancellor's Classical Medals have agreed that the Examination under the new regulations (which first come into force in 1872) shall comprise the following subjects:

Translations from Greek and Latin Prose and Verse into English.

Translations into Greek and Latin Prose and Verse.

Latin Essay.

English Essay on a Classical Subject.

A paper will also be given in Classical Philology and Criticism."

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART IV.
THEOLOGICAL EXAMINATIONS.



FOURTH EDITION, REVISED.

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1880

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the Rev. B. F. WESTCOTT, D.D. Regius Professor
of Divinity.**

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I. THE THEOLOGICAL EXAMINATIONS.

THERE are at present two "Theological Examinations" established by the University: *The Special Theological Examination* (1), and *The Theological Tripos* (2). To these must be added a third Examination which has been organized by members of the Theological Faculty to meet the wants of Candidates for Holy Orders (3).

1. THE SPECIAL THEOLOGICAL EXAMINATION.

The Special Theological Examination is one of the Special Examinations for the B.A. degree. The Examination is conducted by printed papers in the following subjects:

(1) Selected Books of the Old Testament in the English Version.

(2) One of the Four Gospels in the original Greek.

(3) One or more of the Epistles of the New Testament in the original Greek.

(a) The outlines of English Church History down to 1830.

(b) A selected subject or period of English Church History.

A paper is also set in a selected portion of the

Old Testament in Hebrew. For this paper students are not required to present themselves, but the result of it is taken into account in arranging the Class List; and marks of distinction are affixed to the names of those who acquit themselves with credit.

The selected subjects for each Examination are announced by the Theological Board about a year before the Examination.

The names of those who pass the Examination are arranged in three classes: the names in the first class being arranged in order of merit, and those in the second and third alphabetically.

2. *THE THEOLOGICAL TRIPOS.*

In accordance with a Grace of the Senate, Dec. 8th, 1871, a Theological Tripos was established under regulations corresponding to those of the other Honour Examinations for the degree of B.A. The original scheme was modified by a Grace of the Senate, June 1st, 1876. At present the examination commences in each year on that Friday in January which is next after the commencement of the Examination for Honours in the Mathematical Tripos; and is open to Candidates of the degree of B.A. under the same general Regulations as the other triposes. Students who have obtained Honours in any other Tripos are allowed to become Candidates for Honours in the Examination provided that no more than six complete terms shall have passed since the Examination for the Tripos in which they obtained honours.

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The Examination is conducted by printed papers according to the following Schedule.

DAYS.	HOURS.	SUBJECTS.
Fri. . .	9 to 12 1 to 4	Old Testament (General Paper). The Book of Genesis in Hebrew.
Sat. . .	9 to 12 1 to 4	Greek Testament (General Paper). The four Gospels, with special reference to one selected Gospel.
Mon. . .	9 to 12 1 to 4	The Acts, the Epistles, and the Apocalypæ, with special reference to selected portions. Ecclesiastical History of the first six Centuries; special attention being paid to the History of Doctrine during the period.
Tues. . .	9 to 12 1 to 4	The Book of Isaiah in Hebrew. Selected Books of the Hebrew Scriptures and of the Septuagint.
Wed. . .	9 to 12 1 to 4	The ancient Creeds; and the Confessions of the Sixteenth and Seventeenth Centuries, with special reference to the Articles of the Church of England. Liturgiology.
Thur. . .	9 to 12 1 to 4	Selected works of Greek Ecclesiastical Writers. Selected works of Latin Ecclesiastical Writers.
Fri. . .	9 to 12 1 to 4	Selected periods of Ecclesiastical History; special attention being paid to the History of Doctrine during the periods. Selected works of Modern Theological Writers.

It is laid down that :

(1) The General Paper on the Old Testament shall contain questions (i) on the contents of the Old Testament Scriptures, and on the history of the Jews down to the Christian Era; (ii) on the Authorship, Date, Substance and Form of the several books; and questions shall also be set on the History of the Hebrew Text, and of the Greek and English Versions.

(2) The General Paper on the Greek Testament shall contain questions on the formation of the Canon, on the language, on the authorship, date, and subject-matter of the several books; and on the history of the Greek Text, and of the principal Versions.

(3) The Paper on Genesis shall also contain passages for translation from the rest of the Pentateuch and the Historical Books. The paper on Isaiah shall contain one or more passages for translation from the Hebrew Scriptures generally. Each paper on the fixed Books shall contain one or more passages from the Hebrew Scriptures for pointing.

(4) The Paper on the selected Books of the Hebrew Scripture and of the Septuagint and the two special papers on the Greek Testament, shall contain passages for translation and questions on the subject-matter, criticism and exegesis of such Books.

(5) The Paper on Creeds and Confessions shall contain questions on their history, text, and subject-matter.

(6) The Paper on Liturgiology shall contain questions on the text and subject-matter of the

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principal ancient Liturgies and on the History of Christian Worship, with special reference to the Book of Common Prayer.

(7) The Board of Theological Studies shall determine from time to time the credit to be assigned to the several subjects enumerated in the Schedule.

(8) No student shall be classed who has not so acquitted himself in the first three days of the Examination as to deserve Honours.

(9) No credit shall be given to a student in any of the last eight papers unless it appear to the Examiners that he has shewn a competent knowledge in that paper.

Public notice of all the variable subjects selected for the Examination in any year is given by the Board of Theological Studies before the beginning of the Lent Term in the year next but one preceding the Examination.

The names of those students who pass the Examination with credit are placed in three classes, the names in each class being arranged in alphabetical order; and the Class List is published by the Examiners in the Senate-House on the Thursday next before the last Saturday in January.

3. *PRELIMINARY EXAMINATION OF CANDIDATES FOR HOLY ORDERS.*

In addition to the Examinations provided by the University, an Examination has also been instituted by members of the Theological Faculty, in co-operation with representatives of a considerable number of Bishops.

The Council of Management consists of the four Divinity Professors; four persons elected by Graduates in Theology, being members of the Senate, from their own number, two being appointed annually to serve for two years; and one Examining Chaplain nominated by each of the Bishops who are willing to take part in the scheme.

Examinations are held twice every year, about Easter and in October, in such places as the Council determine from time to time. Due notice is given of the times and places of Examination.

The Examinations are conducted by printed papers in the following subjects:

- (1) Selected portions of the Old Testament together with questions on 'Introduction' and criticism in reference to the Old Testament generally.
- (2) Selected portions of the New Testament in the original Greek together with questions on 'Introduction' and criticism in reference to the New Testament generally.
- (3) The Creeds, and the xxxix. Articles: history and contents.
- (4) The Prayer-Book: history and contents.
- (5) Selected portions of Ecclesiastical History.
- (6) A selected work or works of a Latin Ecclesiastical writer, together with a passage for translation into English from some Latin author not previously specified.

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Due notice is given by the Council of the subjects selected from time to time, which are the same for the two Examinations of each year.

The Examinations are open to Graduates of the English Universities; to members of Theological Colleges, in connexion with the Church of England, who have at least entered on the last term of the complete course and are recommended by the Principal; and also to any other person, whether a member of a Theological College or not, who may be nominated by a Bishop with a view to Ordination in his own diocese.

A fee of one pound is charged to every Candidate who enters the Examination.

Every Candidate, before he is admitted to the Examination, must declare himself a member of the Church of England, and produce a satisfactory certificate of moral character.

A list of those Candidates who have satisfied the Examiners, arranged alphabetically in two classes, is published three weeks after the close of the Examination. Copies of this list are sent to all the Bishops who take part in the scheme, and certificates are granted to the successful Candidates, if applied for.

[The following Archbishops and Bishops have expressed their willingness to recognise in various ways the results of the Examination in their admission of Candidates to Holy Orders: the Archbishops of Canterbury and York: the Bishops of Durham, Winchester, Norwich, Worcester, Glou-

cester and Bristol, Hereford, Peterborough, Lincoln, Salisbury, Carlisle, Bath and Wells, Manchester, Ely.]

The papers set by each Examiner are generally submitted to all the Examiners for approval.

II. UNIVERSITY SCHOLARSHIPS AND PRIZES.

1. *THE CROSSE SCHOLARSHIP.*

The Crosse Scholarship is open to all Graduates under the standing of M.A.

The Examination, which is held annually in the second half of the Michaelmas Term, 'turns upon a knowledge of the Holy Scriptures in their original tongues, Hebrew and Greek, of Ecclesiastical History, of the earlier and later Heresies, and such other subjects of useful enquiry as may be thought most likely to assist in the formation of valuable characters, fitted to sustain and adorn the cause of true Religion.'

The Examiners are authorised to publish the names arranged in order of merit of such Candidates as shall pass the Examination with credit.

2. *THE TYRWITT SCHOLARSHIPS.*

The Tyrwhitt Scholarships are open to Bachelors of Arts under the standing of M.A. or Students in Law or Medicine of corresponding standing.

The Examination is held annually in May, and turns upon a knowledge of Biblical Hebrew and other subjects which directly illustrate it.

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The Examiners are required to publish the names arranged in order of merit of such Candidates as pass the Examination with credit.

3. *THE CARUS GREEK TESTAMENT PRIZES.*

There are two Carus Prizes given annually, one to Undergraduates, and the other to Bachelors of Arts.

The Examination is held in the Michaelmas term, and embraces translation and questions upon the Criticism and Interpretation of the New Testament.

4. *THE EVANS PRIZE.*

The Evans Prize is given annually to that Student among the Candidates for Honours in the Theological Tripos, who, being in the first class of the Tripos, shall be judged by the Examiners to stand first in the papers on Ecclesiastical History and the Greek and Latin Fathers.

5. *THE SCHOLEFIELD PRIZE.*

The Scholefield Prize is given, under the same conditions as the Evans Prize, to that student who shall be judged by the Examiners to have shewn the best knowledge of the Greek Testament and of the Septuagint Version of the Old Testament.

6. *HEBREW PRIZE.*

The Hebrew Prize is adjudged, under the same conditions as the Evans Prize, to the student who

shall be judged by the Examiners to have shewn the best knowledge of Hebrew in the Examination for the Theological Tripos and in an additional paper in Hebrew containing grammatical questions and passages for translation into Hebrew set after that Examination.

7. DR JEREMIE'S SEPTUAGINT PRIZES.

The two Jeremie Prizes are open to all members of the University, who, having commenced residence, are not of more than three years' standing from their first degree.

The Examination, which is held in the second half of the Michaelmas Term, is directed mainly though not exclusively to selected books of the Old Testament in the Greek Version and other Hellenistic writings.

Notice of the books selected is given in the Michaelmas Term of the year preceding the Examination.

There are several prizes for Essays on Theological subjects offered under different conditions. Two are annual, the *Hulsean* open to any member of the University under the standing of M.A. ; and the *Burney* open to Graduates who are not of more than three years' standing from admission to their first degree when the Essays are sent in. The *Kaye* (given every fourth year) and the *Maitland* (given once in every three years) are open to Graduates of the University of not more than ten years' standing

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from their first degree; and the *Norrisian* (given once in five years) to Graduates of not more than thirteen years' standing from admission to their first degree when the Essays are sent in.

III. HINTS ON READING.

It will be seen that the general Theological Examinations (§ I.), as well as the Examinations for Scholarships and Prizes (§ II.), are formed upon the same model, though they differ considerably in their range and standard. The same general method of study will therefore be suited for all; and the following hints, which are offered primarily for the guidance of Candidates for the Theological Tripos, will be applicable, with the necessary modifications, to Candidates for any of the other Examinations.

The subjects of Examination may be ranged under the following heads.

1. Holy Scripture.
2. Ecclesiastical History.
3. Dogmatics.
4. Liturgics.

Some remarks will be made on each of these groups of subjects in succession. But it may be well at the outset to call attention to the fact that the course of reading for the Theological Tripos is designed to occupy only two out of the three years of an Undergraduate's residence. The first year of

work in the University ought in all cases to be given to the preparatory discipline of Scholarship and Elementary Mathematics. No premature acquisition of technical knowledge can compensate for the want of the exact habits of expression, method and thought which this introductory training is fitted to create or to confirm.

It may be added that the Theological Subjects included in the course for the ordinary Degree offer a solid foundation for study if they are treated intelligently and in due connexion. Thus a student during the preparation of the Gospel and Paley's Evidences for the Previous Examination, may well gain a good general knowledge of the contents and characteristics of the four Gospels and of early Church History. Careful work on the Acts for the General Examination will furnish an outline of the first constitution of the Christian Church and the historic frame-work for most of the Epistles. The Special Examination, with subjects from the Old and New Testaments and English Church History, carries forward the line of reading already begun, and leaves opportunity for the study of Doctrine.

1. *HOLY SCRIPTURE.*

The first requisite for an intelligent study of Holy Scripture is a fair acquaintance with the original languages. The student must be in a position not only to appropriate but also to weigh

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the opinions of the commentator whom he consults; and in very many cases the *Concordance* is the best commentary.

Most men when they enter the University have already such an acquaintance with Greek as will enable them to enter profitably on the study of the New Testament and LXX. Those who have no knowledge of Hebrew will do well to spend a short time daily during their first year in mastering the elements of the language. For this purpose Mason's *Exercise Book* is a serviceable manual. And when the student is sufficiently advanced he must have a good grammar (as Gesenius' translated by Davies) at hand for reference.

It is assumed then that the Candidate for Honours in the Theological Tripos, when he begins his special course of reading, at the commencement of his second year, will be able to use (with the help of lexicon and grammar) his Hebrew, and Greek Testaments. This being so, he will naturally take some Scriptural subject as part of his work from the first; for the study of the Bible will be the beginning and end of his studies, the most fruitful of all and the most inspiring.

In preparing any book of Holy Scripture the student's first object must be to master the text itself, to become familiar with the various kinds of evidence by which it is attested; to note the most remarkable variations in reading which the book offers; to trace its peculiarities in language or thought; to work out its plan; and to determine

the relation in which it stands to other books similar in scope and character. For this purpose he will need no other help than his lexicon, his concordance, his grammar, and his critical edition of the original. The result of his labour will no doubt be very imperfect, but it will be substantial. The facts which he has gained will be luminous illustrations of principles and not mere burdens on the memory.

After this preliminary work the student will be prepared to examine what has been written on the subjects treated in "Introductions" to the book, as its authorship, date, sources, place of composition, integrity, history, use and the like. And in following out these enquiries he will learn both the value and the defects of his own previous investigations. The details with which he will deal will have a reality which they could not have had, if he had entered upon questions of literary and historical criticism without direct and independent acquaintance with the book itself.

One other general principle must be observed. When the contents and the history of the particular book have been mastered, the book as a whole must be placed in a vital connexion with the external and the spiritual circumstances of the age to which it belongs. In no other way is it possible to enter into a full understanding of its interpretation, to gain a true conception of the method of the Divine Revelation, or to apprehend the present teaching of the Bible for ourselves.

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It will be well for the student commonly to read two books at the same time in different ways: the one rapidly, with regard chiefly to the main thoughts and the broad lines of argument; and the other very slowly, with as complete an examination as possible of language, construction and shades of expression.

Retranslation is one of the most efficient and instructive tests of a knowledge of the text. A single verse retranslated and compared with the original every day will in a short time bring a power of insight into the meaning of the Books of the Bible which cannot perhaps be gained in any other way.

These general rules apply to the special study of all the books of the Old Testament (and Apocrypha) and New Testament alike. They admit however of being illustrated somewhat more in detail in connexion with each group of books.

i. OLD TESTAMENT.

(a) *Hebrew Text.*

From among the many useful editions of the text of the Old Testament, the two following may be mentioned:

The Polyglott Bible of *Stier* and *Theile* [Polyglotten-Bibel zum praktischen Handgebrauch] 4 vols. [a 5th vol. contains the New Testament] which gives the Hebrew, LXX, Vulgate and Luther's German in parallel columns, with a selec-

tion of various readings of the LXX. and Latin, and of various renderings of German translators. This book is almost indispensable. Each volume may be purchased separately.

The Old Testament, Hebrew and English, published by the Bible Society.

Very little has been yet done systematically for the textual criticism of the Old Testament. The collections of various readings made by Kennicott and De Rossi are an important installment of materials towards the work; and the student will read with advantage the *Dissertatio generalis* of Kennicott, and De Rossi's *Prolegomena*. Dr S. Davidson has published a selection of various readings in convenient shape. It will soon however become evident to the student that the problem of the true relation of the Masoretic text, represented in all known Hebrew MSS. with the exception of isolated readings, to the text represented by the Samaritan Pentateuch and by the older versions (Greek and Syriac) has not yet been solved.

The best lexicon to the Old Testament is Gesenius' *Thesaurus* completed by Roediger. Fuerst's *Hebrew and Chaldee Lexicon* [translated by Davidson] is valuable, but not always free from arbitrariness. Fuerst's *Concordance* will be of great value to advanced students. Of smaller lexicons Leopold's, Buxtorf's, Davies' and Gesenius' *Manual Lexicon* are serviceable.

It is impossible to specify particular Commentaries in detail. Examples of each type may be noticed.

Among patristic Commentaries Jerome on the Prophets and Augustine on the Psalms will be consulted with advantage. The English translations of Kimchi on Zechariah (by M^cCaul) and of Ibn Ezra on Isaiah (by Friedländer), and the Latin translations of Kimchi on Isaiah and on the Psalms, and of Rashi (Jarchi) on the whole of the Old Testament, will serve as good specimens of Rabbinic Commentaries. Rosenmüller's *Scholia* contain a great mass of materials from modern commentators up to the date of their publication (c. 1800—1830). Maurer's *Commentary* and the *Kurzgefasstes Exegetisches Handbuch zum Alten Testament* are valuable for the grammatical interpretation of the text. All these Commentaries however will need to be used with caution and reserve for various reasons; and the young student will best commence his work under the guidance of such a commentary as that of Delitzsch on Isaiah.

(b) *The Septuagint.*

The best manual edition (though an unsatisfactory one) is that of Tischendorf (with the recent Appendix). The Oxford edition, which is better printed, has a less complete *apparatus*. The great edition of Holmes and Parsons offers a mine of critical materials; but a critical edition of the LXX. is yet to be desired. De Lagarde has made a beginning of such a work (Genesis 1868); and Fritzsche's labours on the Apocryphal books, and on Esther, Ruth and Judges, are very valuable.

The great work of Hody, *De textibus*, still remains the standard authority for the history of the translation.

There is as yet no satisfactory lexicon to the LXX. The lexicon of Schleusner contains a considerable amount of useful matter, but it is incomplete and ill-arranged. Wahl's *Clavis* to the Apocryphal Books is far more satisfactory. And the *Concordance* of Trommius, though not perfect, is indispensable to the student. Grinfield's *N. T. Editio Hellenistica* represents vividly the linguistic connection of the LXX. and the Apostolic writings.

The LXX. offers, as will be seen, an almost unworked field for critical labour; and the collation of a few chapters of the translation with the Hebrew text in different books (e.g. Pentateuch, I. II. Samuel, Psalms, Isaiah), will suggest to the student problems of the deepest interest and importance. Valuable hints towards working these out will be found in Thenius' Commentaries in the *Kurzgefasstes Exeg. Handbuch*, and in Prof. Selwyn's *Notæ Criticæ*. Frankel's *Vorstudien* is an unsatisfactory and yet useful book.

The study of the LXX. must be combined with that of the fragments (1) of the Old Latin version edited by Sabatier and since supplemented by other scholars; and (2) of the other Greek versions edited afresh with great completeness by Field (*Origenis Hexapla quæ supersunt*).

For the Apocryphal Books the *Kurzgefasstes Exeg. Handbuch* of Grimm and Fritzsche is a

complete and, on the whole, a satisfactory commentary.

(c) *The Vulgate.*

The recent edition of the Old Testament (1873) by Tischendorf from the Codex Amiatinus is probably the best. His edition of the N. T. from the same MS. completes the Bible. The incomplete *Variae Lectiones* of Vercellone are, as far as they go, invaluable; and many important MS. variations are given in the editions of Jerome (*Divina Bibliotheca*). The 'authorised' (Clementine) edition of the Vulgate, which is commonly printed, abounds in unquestionable interpolations from the Old Latin, that is ultimately from the LXX.

The Concordance of Dutripon is satisfactory for the Clementine text; and the various works of H. Roensch will be found very useful for the elucidation of peculiar idioms and words (*Itala u. Vulgata. Das N. T. Tertullians.*). To these Kaulen's *Handbuch d. Vulgata* may be added.

In preparing any book thoroughly the student will do well to read (as far as he is able) these three chief texts, the Hebrew, the Greek, and the Latin. If he wishes to go further, Walton's *Polyglott* will furnish him with Latin translations of the Samaritan translation of the Pentateuch, the Syriac, the Arabic, and the Targums. The Targums on the Pentateuch have also been translated into English by Dr Etheridge.

The several great divisions of the Old Testa-

ment offer many characteristic questions of general interest to which special attention must be paid.

A. Pentateuch and Joshua.

(a) The characteristics of Palestine : geographical, historical, etc. : earlier and later inhabitants (*e. g.* Anakim, Canaanites, Philistines, Midianites, etc.).

(b) Ethnological affinities of the Jews. Their language and its changes.

(c) The Call of Abraham. The Patriarchal Dispensation.

(d) The permanent effects of the sojourn in Egypt ; and the relation of the ordinances of the Law to the Egyptian ritual.

(e) The fitness of the Law as a training for the individual and the race ; and as a preparation for the Gospel.

(f) The wanderings in the desert. The division of Canaan and its influence on the character and history of the tribes.

B. The later Historical Books and the Prophets.

(a) The relation between the political and religious history of the people (Theocracy, Monarchy, Hierarchy).

(b) The immediate circumstances under which special prophecies were given ; and their typical character. Application in the New Testament.

(c) The political and religious characteristics of the kingdoms of Judah and Israel.

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(d) The points of contact of the Jewish and Gentile nations, and the permanent effects of foreign intercourse upon Judaism (*e. g.* the Captivity, the Dispersion).

(e) The history of the Jewish nation between the close of the Canon and the Advent (the Maccabees, the Alexandrine Jews, the Herodian dynasty).

While tracing the development of Judaism the student ought to consider the main characteristics of the præ-Christian religions of Heathendom. For this purpose the excellent little manuals published by the Society for promoting Christian Knowledge on Hinduism, Buddhism and Confucianism are sufficient guides.

In reading the *Psalms* every Student should compare the Prayer-Book and Bible Psalters; and, when the differences between them are important, the source of the discrepancy and the true rendering must be ascertained. Jerome's Version from the Hebrew ought to be compared with the Version printed in the Latin Vulgate. A Hexapla Psalter containing the Hebrew, Greek, two Latin (Vulgate and Jerome's) and two English (Prayer-Book and 'Authorised') texts has been published by Messrs. Bagster, which will be found very useful. As far as possible the historic circumstances of each Psalm should be determined, and the use (if any) made of it in the New Testament. In this subject Perowne's *Commentary* will be of great value.

ii. NEW TESTAMENT.

(a) *Greek text.*

Every student will do well to furnish himself with a manual edition of the Greek text without notes, as, for example, Scrivener's, which marks conspicuously the variations of the chief critical editions from the received text. The simple reprints of Stephens or Elzevir, which are most used, should be avoided carefully, for it is difficult to remove afterwards the false impressions in detail which they give. In addition to the bare text the more advanced student will require an edition with an *apparatus criticus*, as Tischendorf's eighth edition, which is the most complete, or the abridgment of it.

It is further essential that every one should gain a general idea of the history of the text, of the principal authorities by which it is determined, and of the general principles on which the true reading is fixed. Scrivener's *Plain Introduction* gives a very complete account of the materials for New Testament criticism. Some rules for their use can be found in the article 'New Testament' in the *Dictionary of the Bible* or in Hammond's *Textual Criticism*. But no second-hand information can supply the place of independent work. The force of rules will then first be perceived when the student has followed the readings of *groups* of

authorities through a few chapters (*e. g.* of BDLΔ and the Latin and Oriental versions through the earlier chapters of St. Mark; and of ND old Lat. and old Syr. through a section of the Gospels).

The best Lexicons are those of Bretschneider, Grimm, Wahl and Robinson. Schleusner, and Parkhurst edited by Rose, contain a large amount of useful material. Of these the last edition of Grimm (1877—79) is the most serviceable. Bruder's *Concordance* is indispensable for the thorough study of the text. And if to this Winer's *Grammar* translated and edited by Dr Moulton be added, the student will be adequately furnished for independent and invigorating work.

Commentaries should not be consulted till the text has been carefully examined without them. When this has been done they serve to clear up difficulties which have been really felt and to point out others which have been overlooked. Bengel stands supreme for spiritual insight and for suggestive and stimulative power. The respective merits of recent English, German and Swiss commentaries are well known, and when the student has advanced so far as to profit by them he may safely make his own choice. Wetstein, Lightfoot's *Horæ Hebraicæ*, and Schoettgen, cannot be dispensed with for illustrations from Classical and Jewish sources; and Mr Taylor's edition of the *Aboth* (*Sayings of the Jewish Fathers*) is of the highest interest for the history of Jewish thought.

(b) *Versions.*

The Vulgate and Old Latin versions (see p. 20) should always be read in conjunction with the Greek text. The student who wishes to understand yet more fully the form in which the Apostolic writings were current in the first ages will find Cureton's translation of the fragments of the old Syriac and Etheridge's translation of the Peshito Syriac full of interest.

In studying a Gospel or an Epistle each reader should tabulate for himself peculiarities of incident or teaching, correspondences with other books and differences from them, the use of the Old Testament, the relation in which the special books stand to the whole cycle of the Apostolic records. For example, in reading the Gospel of St John, it is of the utmost importance to realise the difference of this Gospel from the Synoptic Gospels in plan, in contents, in style, and its agreement with them in personal portraiture: to follow out its connexion with the Epistles of St John and the Apocalypse: to ascertain its doctrinal connexion with the Pauline Epistles, *e. g.* through the Epistle to the Ephesians and with the Epistle to the Hebrews.

So again in reading any one of the first three (Synoptic) Gospels care must be taken to observe what sections in each are common to the three, what differences of order and detail are found in the common parts, how far peculiar incidents or

traits can be fairly referred to the design of the narrative in which they are found, what light is thrown upon the source (oral or written) of the common elements by the distribution of the coincidences. Such inquiries may seem to be mechanical, but they lead the student little by little to find the three-fold life of the first Apostolic Gospel, and to vindicate at once the substantial distinctness of each record and the full harmony of all. In working out these questions Gardiner's *Harmony of the Four Gospels*, Tischendorf's *Synopsis* and Mr Rushbrooke's elaborate *Synopticon* will be of great service. Anger's *Synopsis* contains much illustrative matter from early writers. Greswell's *Harmony* is printed on a most convenient plan, but the text is very faulty, and it is obvious that parallel narratives are peculiarly exposed to corruption, so that in comparing them a sound critical text is indispensable.

The plan, the correspondences and the sources of the Book of the Acts will furnish investigations of scarcely less interest. And, to touch upon another branch of criticism, the glosses found in a considerable group of authorities will in this case offer a unique problem for study.

The questions raised by the Epistles are still more varied. For the most part the real understanding of the Epistles depends upon a clear conception of the circumstances of the Churches to which they were addressed and of the special relations in which the writer stood to them. The

character of the parties at Corinth, and of the false teachers at Colossæ (for instance), must be carefully examined in reading the Epistles to the Corinthians and Colossians. And the result of the examination will be a more vivid apprehension of the dangers and powers of the first age than can be ever gained if the most exact method of the historical interpretation of the documents be once abandoned. At the same time a sense of the reality of the facts of Apostolic Christendom will be secured, such as Paley successfully develops in his *Horæ Paulinæ*. For a general view of Apostolic doctrine the work of Neander is most suggestive and instructive. Lightfoot's *Essays* in his editions of St Paul's Epistles to the Galatians and the Philippians and Westcott's *Introduction to the study of the Gospels* will indicate the lines in which these inquiries may be directed.

The examination of separate books will be completed by an examination of the history of the collection of the Sacred Books (*History of the Canon*), and of the various confessional decisions on the contents and authority of Holy Scripture (e.g. *Tridentine Decree*; Article ii, *Westminster Confession*, Cap. 1).

For further bibliographical and other details the student may consult the following articles in Smith's *Dictionary of the Bible*: *Apocrypha*, *Canon*, *Cyrus*, *Dispersion*, *Maccabees*, *New Testament*, *Old Testament*, *Samaritan Pentateuch*, *Septuagint*, *Targum*, *Versions*, *Vulgate*.

2. *ECCELESIASTICAL HISTORY.*i. *THE NARRATIVE.*

Any one of the ordinary text-books (Hase, Kurtz, Robertson, Schaff) may be taken as the foundation of more detailed study. Gieseler gives at length in his notes a valuable collection of quotations from original authorities. Neander's great work is quickened throughout by spiritual genius. The *Mémoires* of Tillemont contain an arrangement of materials practically exhaustive up to the time of their composition.

No secondary history, however, can make the study of the authorities themselves unnecessary. The Greek Ecclesiastical Historians and the Historical Tracts of Athanasius are accessible in translations. But even if recourse be had to these for the main narratives, some documents at least should be read in the original: *e. g.* *The Martyrdom of Polycarp, The letter of the Churches of Vienne and Lyons, The Acts of Perpetua and Felicitas, The several Decrees of Toleration, The Canons of the general Councils.*

When once the student has mastered the chief outlines of the history of the period with which he has to deal, he will do well to give special attention to some one or other of the great questions which it includes. In this way his work will gain in freshness and life; he will find details gathered into a true unity; and he may reasonably hope to find some vein of inquiry which he can pursue with the

intention of exploring it more fully by late and maturer study.

Thus in the first six centuries among other great topics the following may be noticed:

1. The varying relations of Christianity to the Empire up to the founding of Constantinople (the grounds and occasions of the Persecutions).
2. The influence of the foundation of the Eastern Empire upon the Church in (i) the East: (ii) the West.
3. The decay and fall of Paganism in (i) the East: (ii) the West.
4. The preparation for the rise of Mohammedanism.
5. The growth of Ecclesiastical organization. The Papacy.
6. The rise and various types of Monachism.
7. The gradual extension of Christianity throughout and beyond the Empire.
8. The influence of Christianity upon legislation.
9. The relation of Christianity to (i) Literature, (ii) Art, (iii) contemporaneous thought.

The selected periods or biographies will in all cases be prepared with constant reference to the original authorities to which the student will be guided by the University Lecturers.

ii. PATRISTIC LITERATURE.

The particular patristic writings which are selected from time to time will serve in some degree to direct the student's choice of subject ; but as far as there may be opportunity, he should endeavour to gain a direct acquaintance with the different forms of thought represented by the great writers of the period upon which he is engaged.

The following selection includes fairly typical specimens of Christian writings of the first six centuries, from which a choice may be made in due proportion as occasion serves, but no one division should be wholly neglected. Writings marked by [] are perhaps of less importance.

1. Clement of Rome.
The *Ignatian Epistles*.
[Barnabas. Hermas. Polycarp.]
The *Clementine Homilies*. [*Recognitions*.]
2. Justin Martyr, *Dialogue*. [Athenagoras.] *Epistle to Diognetus*.
3. Tertullian, *Apology*. *De resurrectione Carnis*: *De corona*:
[*adv. Praxeam*: one of the books against Marcion
(e.g. v.)].
Irenæus: one (or more) of the three last books.
4. Clement of Alexandria: *Strom.* vii.
Origen, *Philocalia* (selections by Gregory and Basil),
or part of the books against *Celsus*.
[Hippolytus, *de Antichristo*.]
Cyprian, *De unitate Ecclesiæ*: selected *Letters*.
The Fragments of Dionysius of Alexandria.

5. The Fragments of Arius and Alexander of Alexandria (in Athanasius, Socrates, Theodoret), Athanasius, *De Incarnatione: de Decretis Syn. Nic.* [*De Synodis.*] Eusebius: the fragments in his *History* collected by Routh. [*c. Marcellum.*] Cyril of Jerusalem, *Catechesis* iii. iv. [or more]. [Hilary, *De Trinitate.*]
6. Epiphanius, *Ancoratus.* [Basil, *Hom. in Hexaemeron.*] Gregory of Nyssa, *Oratio Catechetica.* Gregory of Nazianzus, *De vita sua.* [*Oratio in Synod. Constant.*]
7. Ambrose, *De Spiritu Sancto.* Jerome [*adv. Vigilantium*], selected *Letters.* Augustine, *Enchiridion: De doctrina Christiana: de Fide et Symbolo.* [*De spiritu et litera: Part of de Civitate Dei, e.g. iv. v. xix.*]
8. Chrysostom, *De Sacerdotio.* Cyril of Alexandria, *The three Œcumenical Letters.* [*In Joh. lib. i.*] [Theodoret, *Philotheus.*] Leo, *Ep. ad Flavianum.* The *Definition of Faith* at Chalcedon. Gregory I. *Regulæ pastoralis liber.*

In the study of the Fathers, Kaye on Tertullian, Clement of Alexandria, and (partially) Athanasius; Beaven on Irenæus; Stephens on Chrysostom, will be found useful. Maréchal's *Concordantia Patrum*, Lumper's *Historia Theologico-critica*, Lardner's *Credibility and History of Heresies*, and Cave's *Historia Literaria* are most valuable books of reference. Sophocles' *Lexicon* of Byzantine Greek, Suicer's *Thesaurus* and Roensch's *Itala u. Vulgata* will often be useful for the language.

8. DOGMATICS.

The study of Ecclesiastical History and of the patristic writings, according to the outline already drawn, will furnish the right introduction to the study of Doctrine. It is impossible to form a true conception of the definitions of Doctrine (Dogma) unless the definitions are referred to the historical circumstances under which they were formed. Thus the general object of the student will be to trace how ambiguities of meaning in technical words (*e. g.*, to take instances from one controversy, *ὑπόστασις*, *οὐσία*, *ὁμοούσιος*) have created divisions which experience has afterwards shewn to be unreal, and how the Catholic judgment finally reconciles and unites conflicting and partial views.

i. THE CREEDS.

The two ancient Creeds of the East and West, the Nicæno-Constantinopolitan and the Apostles' Creed, will form the first centres of study. To these the Exposition of the Western Creed (*Quicunque vult*), known as the Athanasian Creed, will form an important appendage, since it contains in some detail the doctrine of the Person of the Lord, which is not developed in the two fundamental Creeds.

In studying the Creeds particular attention must be paid to the following points :

(a) The characteristic differences between the Eastern and Western types of Creed.

(b) The earliest form and the subsequent modifications of each Creed.

(c) The history of the technical words which occur in them (*e.g. Church, Only-begotten, Person, Substance*).

(d) The use of the Creed in Baptism.

Among other books Heurtley *De Fide et Symbolo* and *Harmonia Symbolica*, Hahn's *Bibliothek der Symbole*, Lumby's *History of the Creeds*, Caspari's *Collections for the History of the Baptismal Creed* (*Ungedruckte...Quellen zur Gesch. d. Taufsymbols*, 1866 ff.), Prof. Swainson's *Nicene and Apostles' Creeds*, Prof. Hort's *Two Dissertations*, Bull's *Defensio* and the solid work of Pearson, with Prof. Swainson's *Questions*, will be found of essential service in this branch of study. The notes of Pearson are almost a guide to the Fathers.

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ii. SCHEME OF DOCTRINE.

In pursuing the subject of Dogmatics into further detail, the student will find it convenient to refer each special dogma to its relative place in some general scheme. Among other schemes the following has been shewn by experience to be useful.

Introduction. The Rule of Faith (PISTOLOGY).

1. Revelation and Reason.

2. The Sources of Doctrine.

i. The original memorials of Revelation.

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(1) Holy Scripture.

Inspiration.

Canon (*Apocrypha* of O. T. ; *Antilegomena* of N. T.).

Text.

Interpretation.

Popular use.

Adequacy.

(Examine different texts of *Art. vi.*)

(2) Tradition.

In relation to practice.

In relation to opinion. (*Art. xxxiv.*)

ii. The living interpretation of Revelation.

(1) The Christian Society (Development).

(2) The individual (Illumination : Quakers).

I. The Doctrine of God (THEOLOGY).

1. The general doctrine of God.

i. Supposed proofs of the existence of God.

(1) From without.

Cosmical.

Teleological.

(2) From within.

Ontological.

Moral.

- ii. Essential characteristic: Unity, as
against
 - (1) Dualism (Gnosticism, Manichæism).
 - (2) Polytheism.
 - (3) Pantheism.
 - iii. The attributes and names of God.
2. The Doctrine of the Holy Trinity.
- i. Tripersonality (οὐσία, ὑπόστασις, πρόσωπον).
 - ii. The essential
economic Trinity.
 - iii. Contrasted heresies.
Sabellianism.
Arianism.
 - iv. The idea of Subordination.
3. The Doctrine of the Father.
- i. The Fountain of Godhead.
 - ii. The Father in relation to
 - (1) The Son.
 - (2) Creation.
The world.
Man.
4. The Doctrine of the Son.
Before the Incarnation.

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i. In relation to His Divine Being (λόγος
ἐνδιάθετος).

ii. As revealed (λόγος προφορικός, σπερματι-
κός).

(1) General revelation through Creation.
through Man specially.

(2) Special revelation to the Jews.
Stages of the Messianic promise.

5. The Doctrine of the Holy Spirit.

i. The Personality of the Holy Spirit.

ii. The Procession of the Holy Spirit:
history of the *filioque*.

iii. The action of the Holy Spirit before
the exaltation of Christ.

(Examine history of *Art. v.*)

II. The Doctrine of Man as the representative of Creation (ANTHROPOLOGY).

1. Doctrine of Man in himself

i. Origin.

Creationism.

Traducianism.

ii. Constitution.

Body, Soul, Spirit.

(Natural immortality.)

2. Man and Creation.

- i. The unseen world.
- ii. The visible world.
- iii. Man and humanity.

3. Man and God.

i. Man unfallen.

- (1) The image
likeness of God.
- (2) Original righteousness.

ii. Man fallen.

- (1) Original sin. (Examine texts of *Art.*
ix.)
- (2) Freedom. (*Art. x., xiii.*)
- (3) Sin. (*Art. xv., xvi., Art. xvi. of*
1552.)
- (4) Predestination. (*Art. xvii.*)
- (5) Grace. (*Art. x. of 1552.*)

(The immaculate Conception of the Mother of the Lord).

III. The Doctrine of Redemption, Reconciliation, Consummation (SOTERIOLOGY).

1. The Incarnation.

How far conditioned by the Fall.

- i. The Divine Nature.
- ii. The Human Nature

- (1) Real (Docetism).
- (2) Perfect (Apollinarianism).
- (3) In what sense impersonal.

iii. The Hypostatic Union.

- (1) Without separation (Nestorianism, Adoptionism).
- (2) Without confusion (Eutychianism).
- (3) *Communio* (*communicatio*) *idionatum*.
- (4) The Passion, Descent to Hades, Resurrection, Ascension.
- (5) The worship of Christ.

(Examine the groups of words ἀληθῶς, τελῶς, ἀδιαίρετος, ἀσυγχύτως—ἀσυγχύτως, ἀτρέπτως, ἀδιαίρετος, ἀχωρίστως: the history and texts of *Art.* ii, iii, iv.).

2. The effect of the Incarnation.

- i. Atonement: in relation to the Fall.
- ii. Perfect fulfilment: in relation to the idea of Creation.
- iii. The Mission of the Paraclete.

3. The Incarnation in its application to man.

i. Social conditions.

- (1) The Christian Society. (*Art.* xix, xx., xxi.)

(2) The Ministry. (*Art. xxiii., xxvi., xxxii., xxxvi.*)

(3) The Sacraments.

Various Definitions. (*Art. xxv.*)

Baptism (Infant Baptism, Lay Baptism, Rebaptization. *Art. xxvii.*).

Holy Communion (in both kinds, Infant Communion, as a Sacrifice, Eucharistic adoration. *Art. xxviii — xxxi. Hist. and text.*).

(4) Ordinances of worship.

The Word of God.

The five so-called Sacraments.

Worship of the Virgin and of Saints.

Images; pictures; relics. (*Art. xxii.*)

ii. Personal conditions.

(1) Faith (*fides informis, formata*).

(2) Good Works. (*Art. xii.*).

iii. Realisation.

(1) Regeneration.

(2) Justification. (*Art. xi. texts*).

(3) Sanctification. (*Art. xii.*)

(4) Works of supererogation (Counsels of perfection). (*Art. xiv.*)

(5) Intermediate state.

Purgatory.

Prayers for the dead. (*Art. xxii.,
xl. of 1552*).

4. Effects of the Incarnation beyond Man.

Epilogue (ESCHATOLOGY).

1. The Return. (*Art. xli. of 1552.*)

2. The Judgement. (*Art. xxxix. of 1552.*)

3. The Consummation. (*Art. xlii. of 1552.*)

In investigating the different members of such a scheme as has been given, it is of great importance to observe how in the providential guidance of the Church different parts of the whole sum of Truth have been developed and defined by different sections of Christendom and in different ages. Thus we find that controversies have centred in succession round the conceptions of the Catholicity of Christianity, the historic reality of the Person of Christ, the doctrines of the Incarnation, of Grace and Free-will, of the Atonement, of the Sacraments, of personal Faith, of Revelation and Reason. Generally too it will be obvious that the Greek, the Latin and the Teutonic Churches incline to certain characteristic forms and branches of dogma. The apprehension of this fact will serve as the basis for a sound study of Polemics. Doctrinal error springs from the excessive predominance of a special tendency; and it will not be difficult for a student who enters into the life of Christendom to trace back

the origin of the errors of particular churches (*e. g.* of the Roman Church), to the circumstances, national or political, under which they first took shape. In pursuing this branch of Dogmatics some text-book of the History of Doctrine, as Hagenbach or Shedd, will be found desirable, in addition to the pertinent chapters in the Church Histories. Suicer's *Thesaurus*, though it is confined to the Greek Fathers and is often imperfect, is almost indispensable. Petavius *De Dogmatibus* is best reserved for later study. Dorner's *Doctrine of the Person of Christ* is of great importance, and Martensen's *Dogmatics* will be found most suggestive and stimulative of thought, even where the particular opinions which are advocated may not be received.

Perhaps the most important counsel for the study of Dogmatics is that which insists on the careful definition of terms at the outset. Many words round which controversy turns are used in very different senses by opposite sides (*e. g.* *Sacraments, Justification, Faith*).

iii. THE ARTICLES AND CONFESSIONS.

The study of the xxxix. Articles should be combined with the study of the other confessions of the 16th and 17th centuries. There are convenient editions of the Roman Catholic Symbolic Books by Streitwolf and Klener, to which Denzinger's *Enchiridion* is an important appendix, of the Lutheran by Francke, and of the Reformed by Niemeyer.

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In this branch of Theology (Comparative Dogmatics), which has been grievously neglected in England, Winer's *Confessions of Christendom* (translated by Pope) will be found of great service. The English editor has given admirable directions for the right use of the treatise. The student will also find in the tables at the end a trustworthy summary of confessional differences. When he has mastered these, he will do well to verify the statements which they contain by reference to the quotations from the original documents contained in the body of the book; and then afterwards he will be able to construct for himself in detail a view of the characteristic variations in opinion on some of the central doctrines of Christianity, as the doctrines of Sin, of original Sin, of the Atonement, and, above all, of the Person of the Lord. In doing this, it must be his object to keep steadily in view throughout what is essentially and exclusively Christian in the scheme which he constructs, and what is connected more or less closely with the Jewish and Gentile preparations for Christianity.

For the interpretation of the xxxix. Articles, in addition to some one of the received text-books (Bp. Harold Browne, Burnet, Hey, Boulton,) the work of Rogers (Parker Society) will be found to be of interest, as it furnishes many contemporary illustrations. Laurence's *Bampton Lectures*, and Hardwick's *History* must also be consulted.

4. LITURGICS.

The study of Liturgics includes an examination of all that belongs to public worship, Service-books, vestments, ceremonies, buildings. A very complete discussion of the arrangement of ancient Churches is given in Bingham's *Antiquities*, vol. viii. The ordinary Ecclesiastical vestments are sufficiently described in an appendix to Palmer's *Origines Liturgicæ*, and with elaborate completeness in Marriott's *Vestiarium Christianum*, or the *Dictionary of Christian Antiquities*. These details of dress and place have often far more than a merely antiquarian or artistic significance, but the real interest of Liturgics centres in the Service-books or directories of worship. These may be divided into (i) the Liturgies proper (the forms of the Eucharistic Service): (ii) other Service-books: and (iii) specially Hymns.

i. LITURGIES PROPER.

In dealing with the præ-Reformation Liturgies the student must pay special attention to the following questions.

1. The constituent parts of the Liturgy and their arrangement.

2. The characteristics of the Eastern and Western Liturgies.

3. The several subordinate types of the Eastern and Western Liturgies, i.e. ((a) Jerusalem [St James, St. Basil, St Chrysostom], (b) Alexandrine, (c) Nes

torian, (*d*) Ephesine [Mozarabic, Gallican (Ambrosian)], (*e*) Roman) and the history of their use.

The texts of the chief Eastern Liturgies are given in Renaudot's *Collectio*, and a selection of typical texts by Neale (*Tetralogia Liturgica* [St Chrysostom, St James, St Mark, Mozarabic]). A convenient English translation of five texts with an Introduction has also been published by Neale and Littledale. Hammond's *Liturgies Ancient and Modern* is a convenient manual, but the texts require a careful critical revision. Maskell has edited the different English Uses. The examination of the post-Reformation Liturgies must include some notice of the Lutheran and Reformed Services; but the various modifications of the English Communion Service (including the Scotch and American revisions) will form the most instructive subject of inquiry; and the student will do well to tabulate for himself the chief variations in order and expression of the successive revisions of the Service, and to compare the first Edwardian Liturgy, at least in its main outlines, with that of Sarum. Starting from this basis he will be able to trace the real continuity of the English Liturgy with earlier Liturgies, and to understand the principles which have regulated later changes.

ii. OTHER SERVICE-BOOKS.

The remaining Service-books of the Western Church may be studied in connexion with the English 'Prayer-Book,' which has points of con-

nexion with nearly all of them. For this purpose any one of the recent manuals on the Prayer-book will be a sufficient guide, *e. g.* by Procter or Daniel.

Procter's *History of the Prayer-Book* contains copious quotations from the older Service-books, with reference to original authorities. Neale's *Essays in Liturgiology* are full of rare erudition, Palmer's *Origines Liturgicæ* is a convenient and clear summary. The pertinent chapters in Bingham's *Antiquities* are fair and exhaustive of the materials at his command, for the early period.

Daniel's *Codex Liturgicus* gives a general collection of (1) Roman Catholic, (2) Lutheran, (3) Reformed and Anglican, (4) Eastern Services. The Continental Lutheran and Reformed Services have been collected by Richter. The Westminster *Directory* is added to most editions of the Assembly's *Catechism*. The Mozarabic Services have been reprinted by Migne in his *Patrologia*. The Services of the Copts, the Syrians, and the Armenians, have been very fully collected by Denzinger (*Ritus Orientalium*); and the Greek Services by Goar (*Euchologium*).

Students who wish to prosecute the subject in detail will consult Neale's *General Introduction* to his *History of the Holy Eastern Church*; Scudamore's *Notitia Eucharistica*; Freeman *On the principles of Divine worship*, and the older works of Leo Allatius, Assemani (J. A.), Card. Bona, Gavanti, Mabillon, Martene, Muratori and Zaccaria. But before following out later liturgical developments they will

do well to go back to the investigation of the Jewish Services, on which Zunz is the classical authority. It must however be added that no subject stands more in need of critical investigation than the history of the ancient Liturgies and the relation in which they stood to the Jewish Services. Bunsen's labours in this department, *Analecta Ante-Nicæna* iii, though he has brought together much important material, cannot be regarded as satisfactory.

iii. CHURCH HYMNS.

On the subject of Hymnology the great collection of Daniel is fairly exhaustive. Bingham has given a short notice of some of the more noted hymns used in the service of the Ancient Church (*Antiquities*, xiv.). Specimens of Syriac hymns are given in an English Translation by Dr. Burgess (*Selected Hymns...of Ephrem Syrus*). Many Greek hymns are found in Goar's *Euchologium*, and a selection has been admirably translated by Dr. Neale. The Mediæval Latin Hymns have been fully edited by Mone; and smaller collections, as that of Abp. Trench, contain a fair selection of examples.

It will be evident from the outline which has been given that no student can expect to master all these subjects, even within the limits fixed from time to time, during his University course. Each Candidate for Honours must therefore make a selection out of the whole range. A little prelimi-

nary reading will be sufficient to shew him in which direction he can work most profitably; and when he has definitely made choice of some subjects for detailed study, he must be content to gain such a knowledge of the others as will enable him to feel the right proportions of the parts of the whole science of Theology, and to know the paths along which he must move, if at any later time he should wish to pursue investigations which he is obliged to neglect for the present. There can be no doubt that the highest honours will be within the reach of those who combine a thorough knowledge of one or two subjects with a fair acquaintance with the others; and that excellence in one subject will be allowed to compensate for deficiency in another.

But while great freedom of selection is thus left to Candidates, every one will naturally make Holy Scripture a principal subject. Yet even here the choice must be limited after a time to the Old Testament or to the New, when the study advances to minute and original labour. It will however soon appear that this narrower work does not only increase special knowledge: it will increase power also. And the student who has entered fully into the examination of a single book of the Bible will feel able to appreciate with rapid intelligence the salient features of others. It cannot be too often repeated that the mere acquisition of secondary information exhausts and enfeebles, while all independent work strengthens and inspires. Each subject, in a word, must be regarded in its sources;

it must be regarded as a whole throughout its entire course; it must be regarded as one tributary to an illimitable expanse of Truth.

For Theology, it must be remembered, is a science alike of criticism, of construction, and of action. It is based upon a history, and it issues in life. The perfect Theologian, if we dare to imagine such a man, would require to be a perfect scholar, a perfect physicist, a perfect philosopher. And the sincere student of Theology will strive, according to his opportunities and powers, to gain a firm hold on the principles, at least, of scholarship, of physics, of philosophy. Such knowledge, it is true, is only the foundation of Theology, but it is the necessary foundation. When all this is gained, the memorable words still remain to be fulfilled, *pectus facit theologum*. The fruit of History is Doctrine; and Doctrine is the interpretation, the guide, the motive of life. The fire which quickens and illuminates the gathered materials must come from above, and be fed within day by day till the *Theologia viatorum*—partial, fragmentary, imperfect, to the last—is consummated in the *Theologia beatorum*, when knowledge is lost in sight.

APPENDIX.

REGULATIONS FOR THE THEOLOGICAL TRIPOS AFTER JANUARY 1884.

(Grace, June 2, 1881.)

1. The Theological Tripos Examination shall consist of two parts. The first part shall extend over four days, commencing on the Monday next before the first Sunday in June. The second part shall extend over eight days, commencing on the Friday next before the first Sunday in June.

2. No Student shall be admitted to the Examination, who has not passed or been excused the Examination in the Additional Mathematical subjects of the Previous Examination.

3. A Student may be a candidate for Honours in the first part only, or in both parts, of the Theological Tripos of any year, if at the time of the Examination he shall have entered upon his eighth term at least, having previously kept seven terms, provided that not more than nine terms shall have passed after the first of the said seven terms.

4. A Student, who has obtained Honours in any other Tripos, or in a part of any other Tripos, may be a candidate for Honours in the first part only, or in both parts, of the Theological Tripos of the year next succeeding or of the year next but one succeeding. But no such person may present himself for examination if more than twelve complete terms shall have passed after his first term of residence.

5. Bachelors of Arts, who have obtained Honours in any other Tripos, or in a part of any other Tripos, may be candidates for Honours in the first part only, or in both parts, of the Theological Tripos of the year next succeeding or of the year next but one succeeding. But no such person may present himself for examination, if more than fifteen complete terms shall have passed after his first term of residence.

6. Bachelors of Arts, who have obtained Honours in the first part of the Theological Tripos of any year, may be candidates for the second part of the Theological Tripos of the year next succeeding. But no such person may present himself for examination, if more than fifteen complete terms shall have passed after his first term of residence.

7. A Student who has obtained Honours in any other Tripos, or in a part of any other Tripos, may be a candidate for Honours in the second part only of the Theological Tripos of any year, if at the time of the Examination he shall have entered upon his eighth term at least, having previously kept seven terms, provided that not more than twelve terms shall have passed after the first of the said seven terms. Such candidate will be required to satisfy the Examiners for the time being in three papers of the first part, viz. (1) Old Testament General (English), (2) New Testament General (Greek) and (3) either the History of the Church or the History of Christian Doctrine.

8. Bachelors of Arts who have obtained Honours in any other Tripos, or in a part of any other Tripos, may be candidates for Honours in the second part only of the Theological Tripos of the year next succeeding or of the year next but one succeeding. But no such person shall be allowed to present himself for examination, if more than fifteen complete terms shall have passed after his first term of residence. Such candidates will be required to satisfy the Examiners for the time being in three papers of the first part, viz. (1) Old Testament General (English), (2) New Testament General (Greek), and (3) either the History of the Church or the History of Christian Doctrine.

9. No Student or Bachelor of Arts of a higher standing shall be allowed to be a candidate for Honours in the Theological Tripos, unless he shall have obtained permission from the Council of the Senate.

10. The second part of the Examination for the Theological Tripos shall be divided into four sections. No candidate may present himself for examination in more than two of these sections.

11. Before the division of the Lent Term next preceding the Examination, the Prælectors of the several Colleges, or in the case of Non-Collegiate Students the proper officer, shall furnish the Senior Examiner with lists of the Students who intend to present themselves for examination, and in respect of the second part shall specify the section or sections in which each candidate intends to present himself for examination.

12. No candidate, who has presented himself for either part of the Theological Tripos Examination, may present himself on another occasion for the same part or for any papers thereof.

13. The Examination in each year shall be conducted by eight Examiners; two of whom may be appointed by the six permanent official members of the Board of Theological Studies out of their own number, such appointments being signified to the Vice-Chancellor before the division of the preceding Michaelmas Term, and, if one or both of such appointments be not made in any year, an Examiner or Examiners for that year shall be nominated by the Board of Theological Studies and elected by the Senate, such Examiner or Examiners, however, not being entitled thereby to sit on the Board of Theological Studies; and the remaining six Examiners shall be nominated by the Board of Theological Studies and elected by Grace, three such Examiners being nominated in every year and proposed singly to the Senate before the division of the said Michaelmas Term, who shall, if elected by the Senate, and also re-elected by the Senate in the following year, hold their office for two years.

14. There shall be a general meeting of the Examiners previous to the Examination, when the papers set by each Examiner shall be submitted to his colleagues for their approval.

15. The Examination shall be conducted according to the following schedules and regulations:—

**SCHEDULE OF THE ORDER OF DAYS, HOURS AND SUBJECTS,
AT THE EXAMINATION OF CANDIDATES FOR HONOURS
IN THE FIRST PART OF THE THEOLOGICAL TRIPOS.**

DAYS.	HOURS.	SUBJECTS.
Monday	9 to 12 1½ to 4½	1. Old Testament (General Paper). 2. The Book of Genesis or some other specified portion of the Historical Books of the Old Testament in Hebrew.
Tuesday	9 to 12 1½ to 4½	3. Passages for Translation from the Historical Books of the Old Testament (Hebrew) generally; with questions on Hebrew Grammar and easy Hebrew Composition. 4. New Testament (General Paper).
Wednesday	9 to 12 1½ to 4½	5. The Gospels in Greek, with special reference to some selected Gospel. 6. The Acts of the Apostles, the Epistles, and the Apocalypse, in Greek, with special reference to some selected portion.
Thursday	9 to 12 1½ to 4½	7. The History of the Church to the death of Leo the Great. In each year an original work bearing upon some portion of the history shall be selected for special study. 8. The history of Christian doctrine to the close of the Council of Chalcedon, with special reference to the Ancient Creeds and other original authorities.

REGULATIONS WITH RESPECT TO THE PAPERS IN PART I.

i. The General Paper on the Old Testament shall contain questions:

A. On the Contents of the Old Testament Scriptures, and on the History of the Jews down to the Christian Era.

B. On the Authorship, Date, Substance and Form of selected portions of the Historical, Poetical, and Prophetical Books. Questions shall also be set on the History of the Hebrew Text, and of the Greek and English Versions.

ii. The Paper on Genesis or other specified portion of the Historical Books shall contain passages for translation from the Selected Portion, with grammatical questions, and passages for re-translation and for pointing.

iii. The Paper containing passages for translation from the Historical Books of the Old Testament generally, shall contain grammatical questions on those passages, and shall also contain questions on the Hebrew Language and Grammar generally, passages for pointing, and easy passages for translation into Hebrew.

iv. The General Paper on the New Testament shall be divided into two nearly equal parts, of which the first part shall contain questions on the formation of the Canon, and on Textual Criticism, and the second part shall contain questions on the Language and Grammar of the New Testament, and easy passages for translation into Greek.

v. The two Papers on (1) The Gospels, and (2) The remaining Books of the New Testament, shall contain passages for translation and re-translation, and questions on the subject-matter and exegesis of the Books generally; but questions on Authorship, Date and Textual Criticism shall be set only from the selected portions.

**SCHEDULE OF THE ORDER OF DAYS, HOURS AND SUBJECTS,
AT THE EXAMINATION OF CANDIDATES FOR HONOURS
IN THE SECOND PART OF THE THEOLOGICAL TRIPOS.**

Section I. Old Testament.

Days.	Hours.	Subjects.
Friday	9 to 12 1½ to 4½	1. The Book of Isaiah in Hebrew. 2. Selected portions of the Poetical and Prophetical Books in Hebrew and LXX., including always some portion of the Psalms.
Saturday	9 to 12	3. Passages for Translation from the Old Testament (Hebrew) generally. Hebrew Composition.

Papers (1) and (2) shall contain passages for translation, questions on the subject-matter, criticism and exegesis of the Selected Books, and passages for re-translation. Each of the three papers shall contain passages for pointing.

Section II. New Testament.

Days.	Hours.	Subjects.
Saturday	1½ to 4½	1. A selected Gospel (Greek) with some Patristic Commentary, and the Latin Versions.
Monday	9 to 12	2. A selected Epistle or Epistles (Greek) with some Patristic Commentary, and the Latin Versions.
	1½ to 4½	3. The New Testament (Greek) generally, with Greek Composition.

The New Testament Paper shall contain passages for translation, criticism, and explanation, with questions on the subject-matter and history of the several books.

Section III. History and Literature.

Days.	Hours.	Subjects.
Tuesday	9 to 12	1. Selections from the Apocrypha, the Apocryphal literature, Philo and Josephus.
	1½ to 4½	2. Selected Greek and Latin Ecclesiastical writings.
Wednesday	9 to 12	3. A Historical Period between the death of Leo the Great and the taking of Constantinople, with selected illustrative documents.
	1½ to 4½	4. A Historical Period between the taking of Constantinople and the present time, with selected illustrative documents.

The Periods in (3) and (4) shall be so chosen that the History of the English Church shall be prominently represented in one of them.

Section IV. Dogmatics and Liturgiology.

Days.	Hours.	Subjects.
Thursday	9 to 12	1. History and Development of a selected Doctrine.
	1½ to 4½	2. Subject from Modern Theology in connection with original documents.
Friday	9 to 12	3. The History of Christian Worship with special reference to selected ancient Liturgies and Service Books, and to the history and contents of the book of Common Prayer.
	1½ to 4½	4. An Essay on some theological question arising out of the subjects of the section.

16. If Ascension Day fall upon either of the Thursdays mentioned in the Schedules, there shall be no examination on that day, but the examinations appointed for that day and for the preceding days shall be held one day earlier (exclusive of Sunday) than is here provided.

17. The Board of Theological Studies shall determine from time to time the credit to be assigned to the several subjects enumerated in the Schedules.

18. Public notice of all the variable subjects selected for the Examination in any year shall be given by the Board of Theological Studies before the end of the Easter Term in the year next but one preceding the Examination.

19. A General Meeting of the Examiners shall be held to draw up separate class-lists of the first and second parts, and in each list the names of those persons who pass the Examination with credit shall be arranged in three classes, the names in each class being in alphabetical order.

20. The class-list of the first part shall be drawn up in accordance with the aggregate of marks of each Student, that of the second part on an estimate of the results of the Examinations in the sections considered separately and jointly.

21. In the class-list of the first part the Examiners may affix marks of distinction in Old Testament or New Testament, or both, to the names of those candidates, who, in addition to the papers set in the first part, shall have taken one paper of the corresponding section or sections of the second part.

22. In the case of every Student who is placed in the First Class of the second part, the class-list shall shew, by some convenient mark, (1) the section or sections for which he is placed in that class, and (2) in which of the sections, if in any, he passed with special distinction.

23. No credit shall be given to a Student in any of the papers of either part, unless it appear to the Examiners that he has shewn a competent knowledge in that paper.

24. A Student who shall pass the Examination of the first part of the Theological Tripos so as to deserve Honours shall be entitled to admission to the degree of Bachelor of Arts, provided that he shall have kept the requisite number of terms at the time when he applies for the degree.

25. A Student who, having previously obtained Honours in some other Tripos, shall pass the Examination of the second part of the Theological Tripos so as to deserve Honours, and shall also satisfy the Examiners in the three papers aforesaid of the first part, shall be entitled to admission to the degree of Bachelor of Arts, provided that he shall have kept the requisite number of terms at the time when he applies for the degree.

26. On the eighth day after the end of the second part of the Examination the Examiners shall publish the class-lists in the Senate-House, and shall send to the Vice-Chancellor a list of those persons who shall acquit themselves so as to deserve the Ordinary B.A. Degree, or to be excused the General Examination for the same.

27. Each of the Examiners elected by the Senate shall receive Twenty Pounds from the University Chest.

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART V.

THE STUDY OF LAW IN THE UNIVERSITY OF CAMBRIDGE.



FOURTH EDITION, REVISED.

CAMBRIDGE:
DEIGHTON, BELL AND CO.
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CONTENTS.

The Study of Law in the University of Cambridge, by
E. C. CLARK, LL.D. Regius Professor of Civil Law.

THE STUDY OF LAW IN THE UNIVERSITY OF CAMBRIDGE.

THE present article deals mainly with legal study at Cambridge as regulated and suggested by the Examination for Legal Honours; treating first, of the course of study to be pursued by a Candidate for such Honours; second, of the advantages of that course; third, of the different degrees in Law conferred by the University.

At the end of the Article will be found a short notice of the special legal instruction provided by the University in regard to the Indian Civil Service. For the Special Examination in Law, which forms one of the avenues to the Ordinary degree, see *Student's Guide*, Pt. I. pp. 25, 26.

I. Course of study to be pursued by a Candidate for Legal Honours.

A Candidate for Honours in the Law, as in any other, Tripos must first pass in the Additional as well as in the ordinary subjects of the Previous Examination. (*Student's Guide*, Pt. I. pp. 20, 21). This it is desirable for him to do at the earliest

possible occasion, in order to leave himself free for the extensive sphere of reading required by his Tripos. No greater mistake can be committed by a student than to leave the Tripos subjects to the last year. The hasty 'getting up' which such a course necessitates, must afford but little chance of distinction in the Examination and still less of any real benefit from the reading. Instances have occurred, and will doubtless occur again, worthy of all admiration, where Honour men in other Triposes have subsequently gained Honours in Law by a comparatively short period of reading, but these are cases of power above the average, which cannot be relied upon as precedents of general application.

The subjects for the Law Tripos, on which nine papers are set, of three hours' each, are as follows :

- (1) General and Comparative Jurisprudence.
- (2) Passages for translation taken from the sources of Roman Law, particularly from Gaius, Ulpian, Justinian and some specified portion of the Digest.
- (3) Questions on Roman Law and its history.
- (4) The English Law of Personal Property.
- (5) The English Law of Real Property.
- (6) English Criminal Law.
- (7) The Legal and Constitutional History of England.
- (8) Public International Law.

(9) Essays or Problems on the subjects of Examination.

This numbering does not represent any order of Examination, nor is it the wish of the Board of Legal Studies that any such order should be either generally fixed, or made known to the Candidates for any particular examination.¹

It must be remarked that subjects 2 and 3 will not always have a separate paper assigned to each, but may together be distributed over two papers: which two papers, however, need not necessarily come together in the Examinations. The same remark applies to subjects 4 and 5. The relative importance of the different subjects with regard to marks is not fixed, but they may in general be considered as all nearly equal. The marks are not made public.

For other particulars the reader is referred to the Regulations for the Law Tripos Examination, Appendix to this Article (A). There is no *viva voce* Examination, in which a departure has been made from previous practice.

The intention of those who framed the Regulations was to set *subjects* rather than books or portions of books; the latter method being found to induce a narrow style of reading, and to facilitate the practice of 'cramming' at the last moment. As, however, students would clearly require some guide to the best authorities, it was, by Regulation

¹ See, however, p. 26, note 1.

2 for the Law Tripos, made the duty of the Board of Legal Studies to publish from time to time a list of books recommended to Candidates for Examination. In accordance with this Regulation the following notice was issued by the Board upon the 10th of June 1873 :

“THE BOARD OF LEGAL STUDIES publish the following list of works as most likely to be valuable to students of the respective subjects, but do not urge the necessity of reading every book recommended. The Board consider that no satisfactory knowledge of the subjects treated in the various text-books can be attained without frequent reference to the original authorities.”

The list referred to is from time to time revised, republished in the Cambridge University Reporter and the Cambridge Calendar, and posted on the door of the Law School.

The last issue (Reporter, May 11, 1880) is as follows :—

JURISPRUDENCE :—

Austin's Jurisprudence.

Blackstone's Commentaries, Introduction, § 3, and the general part in the first chapters of each Book.

Maine's Ancient Law, and Early History of Institutions.

Markby's Elements of Law, with the Supplement.

Thibaut, System des Pandekten-Rechts. The general part translated by Lindley (Introduction to the study of Jurisprudence).

Savigny, System des heutigen Römischen Rechts. See the French translation by Guenoux, and the English (System of the Modern Roman Law) by Holloway.

ROMAN LAW :—

For Gaius and Justinian parallel texts are recommended, e. g. Polenaar, Syntagma Institutionum Novum (with Studemund's readings of the Verona MS.); Pellat, Manuale Juris Synopticum; Gneist, Institutionum et Regularum Juris Romani Syntagma; or, Cumin's Manual of Civil Law. The last three also contain the text of Ulpian and Paulus. As a *Lexicon*, Dirksen's Manuale Juris Civilis.

Commentaries and Translations.

Gaius and Ulpian, by Abdy and Walker.

„ by Muirhead.

Gaius, by Poste.

Justinian, by Ortolan (Explication Historique des Instituts. Tomes 2, 3).

„ Abdy and Walker.

„ Sandars.

On Roman Law generally, Mackeldey's Lehrbuch (or the Systema Juris Romani, which is a translation of the 12th ed. of Mackeldey).

Hunter's Roman Law.

History.

Gibbon's Decline and Fall of the Roman Empire, chap. 44.

Ortolan, *Expl. Hist. T. 1* (*Histoire et Généralisation*).

Mackeldey (*Einleitung, Absch. 2*).

ENGLISH LAW :—

Blackstone's Commentaries, any late edition.

Digby's History of the Law of Real Property.

Joshua Williams on Real Property.

Shelford's Real Property Statutes.

Joshua Williams on Personal Property.

Pollock on Contract.

Smith on Contracts.

Spence's Equitable Jurisdiction of the Court of Chancery.

Snell's Principles of Equity.

Stephen's General View of English Criminal Law.

Stephen's Digest of the Criminal Law.

Greaves' Criminal Law Consolidation Acts.

Reeves' History of English Law.

Stubbs' Documents illustrative of English History.

Stubbs' Constitutional History of England.

Hallam's Constitutional History of England.

May's Constitutional History of England.

INTERNATIONAL LAW :—

Wheaton's Elements and History of International Law.

Manning's Law of Nations.

Halleck's International Law.

Kent's International Law.

Calvo. *Le Droit International théorique et pratique*.

Heffter's *Europäische Völkerrecht*, or the French translation by Bergson.

Woolsey's Introduction to the study of International Law.

In the arrangement of this list it was not thought desirable to italicize certain works as of greater importance, because this might amount to the practical exclusion of those not italicized. The plan, in general, was adopted of placing at the head of each department in the list some one work (where such a work could be found) containing a general view of the subject: the student being left to supplement such general view by reference to the more detailed works subsequently enumerated. Some of these are books of reference; some, alternatives, mentioned to meet the case of a work being out of print. All may be consulted in the University Library, reference department of the Camden (CAM.) class, from which they may not be taken out. On the subject of admission to the Library, see Rules and Orders 1, 2, 30—33. These and other University Regulations are printed in the 'Compendium,' a copy of which is given to every Undergraduate on his admission, (see also *Student's Guide*. Pt. I. p. 66).

The Regulation for the Law Tripos Examination, partly quoted above, also makes it competent

to the Board of Legal Studies to *limit* any or all of the subjects to a department or departments of the same ; provided that public notice of such limitation be given in the Lent Term of the (Civil) year next but one preceding that in which the Examination in the subjects so limited shall take place. Whether any such limitation shall be made is, it will be observed, in the option of the Board ; but, as Subject 2 necessarily involves some *specified* portion of the *Digest* (unless the *Digest* be excluded by express limitation), a variable list of subjects for each particular Examination will be regularly issued in the Lent Term next but two before. It may be well to remark that Roman Law (so far at least as regards the Institutes of Gaius and Justinian), the English Law of Real and Personal Property, and English Criminal Law, are standing subjects, which, in all probability, will *never* be limited, the two former for a reason to be stated hereafter (see p. 20), the last for its general interest and importance to all classes.

As to which of these subjects should have the priority, no general rule can be laid down. Roman Law should not be long neglected by those who find any difficulty in translating the Latin : for it must be remembered that a knowledge of the originals is required, which no mere reading of translations can supply. As, however, one main object in reading this subject at all is to acquire general principles of law, a brief view of Jurisprudence might with advantage precede the study of Roman

REES LIBRARY
THE STUDY OF LAW.

Law. Austin's must still be the standard work on Jurisprudence, but the reader should not omit, as too many readers do omit, to read, by the side of Austin, that brief portion of Blackstone which is devoted to a general consideration of law. The results of Austin are very fairly given in a more readable work—Markby's *Elements*—which contains much useful matter beside. Sir H. Maine's works are too well known and valued to need recommendation.

As a history and general sketch of Roman Law, Ortolan's *Histoire et Généralisation* (which has been translated into English), is the most accessible authority for a student. Nor should Gibbon's masterly sketch be forgotten, if only for its literary merit. With regard to the originals, the two great Roman Institutional works, Gaius and Justinian, should certainly be read side by side, a method constantly neglected but essential to the correct understanding of the history and changes of Roman Law. Of the parallel texts mentioned, Gneist's *Syntagma* is perhaps the best.

For a general view of English Law, easily intelligible to a beginner and tolerably well arranged, it would even yet be hard to point out a better authority than Blackstone. His work will form no bad foundation for Subjects 4, 5, 6, and 7, of which the first three may be considered as permanent, nor is the fourth likely to be so limited as to exclude the brief treatment of it in the *Commentaries*. As to modern editions, the favour of teachers seems pretty equally divided between those

which practically re-cast the subject-matter (as Stephen's), and those which adhere more closely to the original scheme (as Kerr's). But it should be remarked that Blackstone's own words and arrangement must be consulted by any one who wishes to understand the criticisms of Austin. The more detailed works enumerated after Blackstone may be roughly grouped into Property Law (including Contracts and Equity), Criminal Law, and Constitutional Law and History. Digby's is an excellent historical introduction to Real Property Law, that subject being brought down to the present day in the well-known work of Williams. The treatment of Personal Property Law by the latter author has not perhaps attained an equal celebrity; but seems to be the best single text-book on the subject. Pollock on Contract is a most useful work both for the student and the practitioner. The principles of Equity, as developed down to the present time, are very well given in Snell.

As to Criminal Law the best supplement to Blackstone's fourth book (if not, indeed, a substitute for it) is Sir James Stephen's Digest, with Greaves for reference until the projected Code is passed.

There is a good sketch of the history of English Law generally in the first volume of Spence's *Equitable Jurisdiction*; and Reeves is still a standard authority. Stubbs, Hallam and May practically form a series from our earliest history to the present day.

As to International Law, it will be seen at a glance which books contain the English and Amer-

ican, and which the Continental views on this subject. Woolsey's is an extremely convenient Manual.

The number of works above mentioned, to many of which this notice scarcely does the most scanty justice, may seem alarming in the eyes of any but very determined students. Most of them, however, are books well worth possessing, even if they are not mastered at once. And in the case of the larger ones, especially such as enter more into practice, it may often be found advisable to recommend at least a first perusal *per capita*, by headings and tables of contents merely—which, if well drawn, furnish far the best form of analysis.

The Candidate for Legal Honours may during his residence at Cambridge derive assistance from the courses of *Lectures* delivered.

The Regius Professor of Civil Law delivers at least two courses of Lectures during the year on subjects connected with the Civil Law and Jurisprudence. The matter of these Lectures will sometimes be fixed by reference to a particular Examination, but will always be treated so as to be, as far as possible, useful to Candidates for Honours generally. The Lectures are delivered in term-time, in the Law School, and usually at noon on Mondays, Wednesdays, and Fridays. A notice is posted, early in each term, upon the door of the Law School, stating the subject of the Lectures to be delivered by the Professor in the current term. The first Lecture is free, being intended to give students a sketch of the ensuing course and thus

enable them to judge whether they are likely to derive benefit therefrom. For the course a fee of two guineas is to be paid, by Candidates for Honours, to the Professor.

The Downing Professor of the Laws of England usually gives one course of Lectures in the Michaelmas and another in the Lent term. The subjects are generally the Law of Real Property and Constitutional or Criminal Law. The Lectures are open without fee to all members of the University, and are given at West Lodge, Downing College.

The Whewell Professor of International Law delivers at least one course of Lectures in the year on International Law, with a special bearing upon such portions of that subject as are selected for the Honour Examinations. The Professor's ordinary course of Lectures is usually delivered in the Michaelmas term and is free of charge.

There are also Law Lectureships established at Caius College, Trinity Hall, St John's College, Trinity College, and Downing College. The courses are however, by means of the Intercollegiate system, thrown open to the whole University; the fee payable (if any) being announced at the first lecture which may always be attended without payment.

A table of the law lectures to be delivered by the Professors and College Lecturers is issued by the Board of Legal Studies, in every Easter term, for the ensuing Academical year. This is published in the Reporter, and posted on the door of the

Law School as well as on the Screens of the respective Colleges.

II. The advantages of the course of study above briefly sketched are divisible into two classes, which may be distinguished as external and internal. Under the latter head will come the important points of education and training; under the former the honours and rewards open to all members of the University, those open only to members of particular Colleges, and the exemptions or other privileges allowed by legal bodies elsewhere to persons taking legal degrees in the University of Cambridge. Those degrees themselves should in strictness come under the present head, and are only treated separately for the sake of more easy reference.

The University rewards and honours having special reference to the study of Law are the Whewell Scholarships, the Chancellor's Medal for Legal Studies and the Yorke Prize. Two scholars on Dr Whewell's foundation are chosen every year at some time before the commencement of Michaelmas Term, one of whom receives an annual payment of £100, the other an annual payment of £50. For their election, an Examination is held, usually in the Easter term, at which four papers are set, two on International Law, two on Moral and Political Philosophy. All persons under the age of twenty-five years are eligible to these Scholarships, which are tenable for four years under certain conditions of residence. No one who has once gained a Scholarship is allowed to be a Candidate a second time. Finally, every person elected

is entitled, and, if not already a member of some College in Cambridge, is required, to become a member of Trinity College.

A gold medal is annually given by the Chancellor of the University for the encouragement of Legal Studies. The Examination commences on the Monday of the week following that in which the Examination for the Law Tripos has been held. It is open to all Candidates who have presented themselves for the Law Tripos of the current year ; to all students who, having passed the Examinations entitling to admission to the title of Bachelor-designate in Arts or Law, are not of sufficient standing to be created Master of Arts or Law ; to all students, who, having taken the degree of Bachelor of Arts *jure natalium*, are not of sufficient standing to be created Masters of Arts ; and to all students in Medicine of not more than seven years standing from Matriculation, who have passed both the Examinations for the degree of Bachelor of Medicine¹.

The general subjects of Examination are the Elements of Roman Civil Law, the Principles of International Law, the Constitutional History and Constitutional Law of England, and the Principles of the General Law of England, viz. : of the Law of Real Property, of the Law of Personal Property, of Criminal Law, and of Equity. Certain books

¹ The old Regulations, which remain in force for the Examination of 1881, may be seen in the Cambridge Calendar, 1880.

or parts of books are, moreover, assigned by the Board of Legal Studies to be special subjects of study for the Examination in every year, public notice of the books and parts of books so assigned for the Examination in any year being given in the first week of the Lent term of the preceding year. The general list of works recommended for this examination is the same as that published by the Board of Legal Studies for the Law Tripos.

The Yorke Prize is the residue (after payments of £10 to the Adjudicators) of the income of £3689. 1s. 7d., consols, bequeathed by the late Edmund Yorke, M.A., of St Catharine's College. It is awarded to the Author, being a graduate of the University of Cambridge, of the best essay upon some subject relating to the Law of Property, its principles and history in various ages and countries. Such graduate must not be of more than seven years standing from admission to his first degree at the time when the exercises are directed to be sent in. The subject is announced and published before the end of November in each year. The exercises must be sent in to the Vice-Chancellor, before the first of December of the year succeeding. The successful competitor must print and publish the essay at his own expense.

Of honours or rewards for legal study open to members of particular Colleges the following are the chief:—

At Trinity Hall, four Law Studentships tenable for three years and of the annual value of £50.

They are given to graduates of the College in Arts or Law who intend to prepare themselves for practice in some branch of the legal profession. The holders of these Studentships are not required to reside in the University. There are also special College Examinations in Law, by the result of which Scholarships can be awarded to those who shew promise of distinction.

At St John's College, four Law Studentships founded by James M'Mahon, Esq., of the value of £150 per annum each, tenable for four years from the date of election, are open to the competition of members of the College whether resident or not who shall have taken the degree of B.A. or LL.B. and shall not be of sufficient standing for the degree of M.A. or LL.M. and who shall *bona fide* intend to prepare themselves for practice in the profession of the Law. There is also a Law Examination in the Easter Term for students of the first, second and third years; and those who distinguish themselves receive prizes and are eligible to Foundation Scholarships or Exhibitions.

At Downing College, some of the Foundation and Minor Scholarships are awarded for distinction in Moral Philosophy in connection with the principles of Jurisprudence and International Law. The Foundation Scholarships are worth not less than £50 per annum (with the addition, in some cases, of rooms rent free and an allowance for commons), are tenable at least until the holder is of standing to take the degree of Bachelor of

Arts, and, in case of sufficient distinction, till such holder is of standing to take the degree of Master of Arts. The Minor Scholarships are offered for competition among persons who are not members of the University or Undergraduates who have not resided one whole term in the University. They are worth from £40 to £70 per annum and are tenable for two years or until the holder is elected to a Foundation Scholarship.

The six non-resident Fellowships of this College are intended for persons in the study or active pursuit of the professions of Law or Physic. The example has been set, by the last-mentioned College, of giving Fellowships for University distinction in Law alone. As the importance of the Law Tripos increases, from the greater number of students who are being attracted to it, and the better appreciation, at Cambridge and elsewhere, of the studies with which it is connected, it may fairly be expected that more encouragement will be given to proficiency in Law, by way of College honours and emoluments. At present, in these respects, the Law Tripos does, undoubtedly, stand somewhat at a disadvantage as compared with those of older standing and larger following.

Students who are preparing for the Bar, or practice under the Bar, enjoy, in their London career, certain advantages of an external character, some directly, others indirectly, from the course of Legal study at the University. Among the

Consolidated Regulations of the four Inns of Court, the following are those mostly in point :—

The Examination for Studentships and Call to the Bar.

44. The subjects for Examination shall be the following :

(i) Jurisprudence, including International Law, Public and Private.

(ii) The Roman Civil Law ;

(iii) Constitutional Law and Legal History ;

(iv) Common Law ;

(v) Equity ;

(vi) The Law of Real and Personal Property ;

(vii) Criminal Law.

45. No student shall receive from the Council the Certificate of fitness for call to the Bar required by the four Inns of Court unless he shall have passed a satisfactory examination in the following subjects, viz. 1st, Roman Civil Law; 2ndly, The Law of Real and Personal Property; and, 3dly, Common Law and Equity.

46. No student shall be examined for call to the Bar until he shall have kept nine terms; except that students shall have the option of passing the Examination in Roman Civil Law, required by Rule 45, at any time after having kept four terms.

47. The Council may accept a degree in Law granted by any University within the British dominions as an equivalent for the Examination in any of the subjects mentioned in Rule 45, other than Common Law and Equity; provided the Council is satisfied that the student, before he obtained his degree, passed a sufficient Examination in such subject or subjects.

49. The honours List shall contain two classes, in both of which the List shall be alphabetical. The Examination for honours shall be in the subjects mentioned in clause 44. And no student shall be entitled to be placed in either class unless he shall have passed a satisfactory examination in all the subjects mentioned in clause 45.

50. As an encouragement to students to study Jurisprudence and Roman Civil Law, twelve Studentships of 100 guineas each shall be established and divided equally into two classes; the 1st class of Studentships to continue for two years and to be open for competition to any student as to whom not more than four terms shall have elapsed since he kept his first term; and the 2nd class to continue for one year only, and to be open for competition to any student not then already entitled to a Studentship, as to whom not less than four and not more than eight terms shall have elapsed since he kept his first term; two of each class of such Studentships to be awarded by the Council, on the recommendation of the Committee, after every examination before Hilary and Trinity Terms respec-

tively, to the two students of each set of competitors who shall have passed the best examination in both Jurisprudence and Roman Civil Law. But the Committee shall not be obliged to recommend any Studentship to be awarded if the result of the Examination be such as, in their opinion, not to justify such recommendation.

Rule 56 empowers the Inn of Court to which any student placed in the First Class of Honours shall belong, to dispense, if desired, with any number of terms, not exceeding two, which may remain to be kept by such student previously to his being called to the Bar.

It is apparent that under the above Rules the student, whose object is merely to obtain a Certificate of fitness for call to the Bar as soon as possible, may derive direct advantage from his legal degree at Cambridge by being excused the London Examination in Roman Civil Law and in the Law of Real and Personal Property. To secure, however, the satisfaction of the Council, as provided for in Rule 47, it is of course necessary for the Cambridge Examination in these subjects to be *thorough*, and for the subjects themselves to be little, if at all, limited by the Cambridge Board (see above, p. 8).

A certificate of satisfactory examination is required to be lodged with the clerk to the Council. This certificate is granted by the Regius Professor of Civil Law to all successful Candidates for the Law Tripos who attain a minimum of marks required by the Board of Legal Studies.

The Cambridge student who seeks for honours or emolument from the London examinations will derive a very material, though indirect, advantage, not only from the general identity of the subjects with those which he has previously studied, but, in particular, from the encouragement given in London to Jurisprudence and Roman Civil Law, for the study of which there are, it will be hereafter shewn, peculiar opportunities at a University town as distinguished from London (see p. 24). It should also be remembered that First Class Honours in the London Examination may accelerate call to the Bar by two terms (Rule 56).

Candidates for admission as Attorneys or Solicitors do not appear to derive any external advantage directly from the special study of Law at the University. The preliminary examination is excused to all who have passed the Previous Examination at Cambridge, and two years of service (as Articled Clerk) to all Graduates of Universities: those who have merely passed the Previous Examination at Cambridge, without proceeding to a degree, have one year of service excused. An indirect advantage, however, in the intermediate and final examinations, will, no doubt, be enjoyed by those who have applied themselves especially to the study of Law at Cambridge. Upon the subject of Attorneys and Solicitors, reference may be made to the Summary of Regulations published by the Incorporated Law Society.

The *internal* advantages of education and train-

ing, to be derived from the course of Legal study at Cambridge, arise partly from the nature of that study itself, partly from the local circumstances under which it is pursued. The subjects to which the reading of students is directed are mainly the principles or scientific part of Law. The importance of laying a foundation of these, before essaying practice, has been insisted upon by almost every writer, and experienced by almost every practitioner of eminence. This is in no degree less true of solicitors and attorneys than of barristers. It is from a very low and cynical point of view that the former are sometimes considered as merely capable of technicalities, while the whole science of Law must be left to the higher branch of the profession. And, as for the dignity of the practitioner, so for the interests of the client, nothing can be worse than that those who are consulted in the first instance, in whose hands the wishes or grievances of the laity are first put into legal form, should be unable to rise above the barest empirical estimate of the facts before them. Especially is a knowledge of the principles of Law essential to the large and highly responsible body of *country* solicitors, who must not infrequently be obliged, from mere pressure of time, to decide, by their personal knowledge, upon points of scientific difficulty and yet of vital importance to the welfare of whole families.

Even if considered as regarding the interests of the practitioner alone, the importance of beginning with a scientific education will hardly be

contested. It may fairly be left to those who have begun legal work, as too many still do, without this preparation, to say what waste of time and labour may be spared by having principles ready for application to practice, instead of being obliged to acquire them, in a very different fashion, from it.

Nor is the superiority of the former method more evident at the outset of professional life than when the ambition is felt of aspiring to those higher dignities and positions of more extended usefulness to which the Bar is an avenue. The infinite advantage of the scientific over the mere empirical lawyer is nowhere so patent as in their respective qualifications for the post of judge, or of legislator. The former office, too, it must be remembered, continually involves the latter, and in a manner which, because indirect, is less subject to constitutional checks. Hence the double importance that a judge should be one whose mind is not a mere repertory of unconnected precedents, but a well-ordered system of principles and experience combined. That the views here urged are no depreciation of the value of practice, may be seen from the fact that they have been adopted by the most eminent practical men of modern days. Reference may be made to the Report of the Commission of 1854 and to the debates upon the proposal for the establishment of a general school of law in the metropolis, by the Lord Chancellor (then Sir Roundell Palmer).

For, the result in which all authorities agree

is almost identically that of Sir Henry Maine's evidence before the same Commission, that it is of the greatest importance for those who practice the law to be well grounded in the principles of jurisprudence, and that nothing is more difficult than to get those, who are studying with a view to practice as early as possible, to devote themselves to a scientific study of those principles.

The difficulty here mentioned indicates the local advantage of Cambridge as a place of scientific legal study. The school of practice must, of course, be attended at some time in a man's career: it exists only to a very small extent in Cambridge, and to the highest perfection in London; and for that very reason the University town is a better site than the metropolis for that scientific reading which ought to come first. For experience shews that this is scarcely ever practised without disturbance, and is in danger of being entirely ousted, wherever it is brought into close neighbourhood and consequent competition with the attractions of actual business. In other respects the advantages of London and Cambridge are pretty much on a par: men of equal ability will probably be attracted to the respective educational posts; and the conveniences of study offered by the University library are as good as any that can be found in the metropolis: but Cambridge has what London has not, in the leisure which is necessary for studying principles; as London, on the other hand, has what Cambridge has not, in the business which alone can teach the application of those principles to practice.

III. The degrees in the Legal faculty conferred by the University of Cambridge are those of Bachelor of Law, Master of Law, and Doctor of Law: the abbreviation for which titles are LL.B., LL.M. and LL.D. respectively. For an explanation of these abbreviations see Appendix (B).

Candidates who have obtained Honours in a Law Tripos are admitted to the degree of Bachelor of Law, either instead of or in addition to that of Bachelor of Arts. Those who have not deserved Honours, may be declared by the Examiners to have acquitted themselves so as to deserve an ordinary degree, and such persons are admitted to the B.A. degree without further examination (*infra* pp. 34, 37). The Inauguration of Bachelors and perfecting of their degree takes place in the Easter term. For the fees payable on admission see *Student's Guide*, Pt. 1, p. 85.

A Bachelor of Law, or a Bachelor of Arts who has taken that degree by Honours in Law, may be admitted to incept in Law without further examination, at any time after the completion of three years from his time of Inauguration as Bachelor. He is created and becomes a complete Master of Law, without attendance, on the last Tuesday but one in June (Commencement). Bachelors and Masters of Arts desirous of proceeding to the degree of Bachelor or Master of Law, and who have not obtained Honours in Law, are required to satisfy the Examiners for the Law Tripos in the papers numbered 4, 5 and 6 (English Personal Property, Real Property, and Criminal

Law¹, and to pay a fee of £3. 3s. to the Regius Professor of Civil Law. But no person may be thus admitted to the degree of Bachelor of Law unless he shall have obtained Honours in some Tripos. Fees payable on admission to the degree of LL.M. are, to the Chest, £12; to the College, a fee varying between £4. 4s. (Downing) and £11. 9s. (Trinity). A portion of the College fee is in some cases remitted where the degree of Master of Arts has been previously taken.

A Master of Law may be admitted to the title of Doctor-designate when five years have elapsed from his creation as Master, provided he have kept an Act, to the satisfaction of the Regius Professor or his deputy, at some time after such creation. He is created and becomes complete Doctor of Law, without further attendance, on Commencement-Tuesday. The fees payable are, to the Chest £20, to the College a fee varying from £8 (Emmanuel) to £17. 10s. (Trinity), and to the Regius Professor, for keeping the Act, £10. 10s.—The Act is to be kept as follows :—

“The Regius Professor of the faculty shall assign the day and hour when the exercise for the degree of Doctor of Law shall be kept.

“The Professor, or some graduate of the faculty, who is a member of the Senate, deputed by him, shall preside over the exercise.

“The Candidate shall read a thesis, composed in

¹ These papers are usually taken first in the Law Tripos, which commences, after 1881, upon the Monday after the last Sunday but one in May.

English by himself on some subject approved by the Professor; the Professor, or graduate presiding, shall bring forward arguments or objections in English for the Candidate to answer, and shall examine him in English *viva voce* as well on questions connected with his thesis as on other subjects in the faculty of a more general nature; the exercise being made to continue at least one hour.

“Public notice of the Act shall be given by fixing on the door of the University Schools, eight days at least before the assigned time, a written paper specifying the name and College of the Candidate, the day and hour appointed for the exercise, and the subject of the thesis: copies of the notice shall be delivered also, at the same time, to the Vice-Chancellor and to the Professor.”

The three notices here required are in practice sent to the University Marshal. For the thesis, subjects in English, Roman or International Law are accepted by the present Regius Professor. A subject is preferred with which the Candidate has some personal acquaintance either from practice or special research.

The power of proceeding to the degree of Doctor of Law under the conditions prescribed by the 13th chapter of the Statutes published in the 12th year of Elizabeth, is reserved to Bachelors of Law and Masters of Arts who were admitted to their degree before July 31, 1858 (*Statuta Academiae Cantabrigiensis* p. 41). These conditions have become confined by custom to the keeping of a single Act, in the manner above described.

On the Study of Indian Law (by Sir R. K. WILSON, Bart., *Reader in Indian Law*).

The first public provision for instruction on this subject was made only two years ago, by the appointment of a "Reader on the Laws of India," whose duty is defined to be "to give instruction to the students, and to prepare them for their periodical examinations, according to a scheme to be approved by the Board of Legal Studies." (Report of Syndicate as to giving further facilities for the residence and education of candidates for the Civil Service of India, confirmed by Grace of April 9th, 1871. *University Reporter*, 1877—8, pp. 356, 449.) The students referred to are the Selected Candidates for the Indian Civil Service, whose receipt of the Government allowance during their two years of special training is now made conditional on their residence at Oxford or Cambridge or some other approved University. Their "periodical examinations" are however regulated not by the University but by the Civil Service Commissioners, and take place in London. The number of these students resident in Cambridge at any given time is not likely to exceed thirty or thereabouts, each of whom, supposing him to apportion his reading in strict accordance with the relative importance of his different studies as indicated by the allotment of marks, will devote to Indian Law about one-sixth of his available time during the two years; each moreover is furnished indi-

vidually with detailed instructions from Whitehall, and can readily obtain further advice from the Reader. It is therefore not necessary to say much here so far as this class is concerned. The lectures on Indian Law are adapted pretty closely to the examinations, time, place and subject being notified in the usual modes together with those of the other Law Lectures. And it may not be out of place to mention here, that for the convenience of Selected Candidates a separate course by the same Reader is arranged to cover the other legal subjects, not strictly within his province, which are prescribed for Selected Candidates under the two heads of 'Jurisprudence' and 'Law of Evidence ;' the former including portions of Blackstone's Commentaries and the whole of the Institutes of Justinian, as well as Maine's Ancient Law and parts of Austin and Bentham.

The study of Indian Law at Cambridge may however be considered quite apart from the special requirements of the Indian Civil Service. Long before these had begun to claim attention, in fact since the year 1862, the subject had received a certain measure of direct recognition, though it was little more than nominal. The regulations for the Special Examination in Law for the ordinary B.A. degree, following in this respect those for the ordinary degree of Bachelor of Laws, which they superseded, allow "The Elements of Hindu and Mohammedan Law" to be taken up as an alternative instead of Mackenzie's Roman Law. The

boon was in fact illusory, for whatever class it may have been intended, inasmuch as the candidate offering himself for examination in the Indian subjects would still have to master the Institutes of Justinian, and would rather lose than gain by dispensing with the assistance of Mackenzie. It might perhaps have been of substantial advantage to an appreciable number of students had they been allowed to substitute (say) three of the best Indian Codes for either Blackstone or Justinian.

But however scantily it may be recognised as a separate study, Indian Law enters already to a greater extent than is commonly acknowledged into the regular course of reading for the Law Tripos. Among the books recommended by the Board of Legal Studies, and in fact most generally read, there are several which pointedly direct attention to the salient features of the Hindu and Mohammedan systems as well as to the modern Anglo-Indian Codes: viz. Markby's *Elements of Law*, based on lectures delivered to a class of Hindu and Mohammedan law-students at Calcutta; Pollock on Contract, a work in which, to use the author's own words, "The Indian Contract Act has been almost constantly kept in view" (Pref. p. vii); and above all the three well-known works of Sir Henry Maine on Ancient Law, Early History of Institutions, and Village Communities, which would probably be found to contain collectively as much matter relating to Indian, as to either Roman, Teutonic, or Celtic institutions. Again,

Austin's Jurisprudence, as published in its latest and most improved form under the somewhat over-modest title of "The Student's Austin," abounds with Indian illustrations, supplied by the learned editor. It seems on the whole not unlikely, that if General and Comparative Jurisprudence continues to occupy the same prominent place as at present in the Cambridge course, the attention of students will be increasingly directed to India for two purposes; for the sake of its legal antiquities and of its modern experiments in codification. But for this purpose appropriate text-books are much wanted. As matters stand at present, the following is the best selection we feel able to recommend to a law student who desires merely to use Indian Law as an aid to the study of General Jurisprudence. The books mentioned are to be found in the University Library unless the contrary is mentioned.

1. The Indian Penal Code (with commentary by J. D. Mayne, or in its place among the Legislative Acts, xlv. of 1860). This may be read with advantage by the side either of Stephen's Digest of the English Criminal Law, or of Bentham's Theory of Legislation.

2. The Indian Contract Act, ix. of 1872; only to be found under the latter title among the Legislative Acts, not in a separate form.

3. The Indian Succession Act, x. of 1865

(with commentary, &c. by W. Stokes). Gives the rules of intestate and testamentary succession much as they would be in England if the law of real were assimilated to that of personal property.

4. Mayne (J. D.) on Hindu Law and Usage. Especially useful for reference in reading the works of Sir Henry Maine.

There is not much in Mohammedan Law which could be turned to account for academical purposes. The newest and perhaps the most convenient book on the subject is Rumsey's Mohammedan Law of Inheritance.

APPENDIX (A).

REGULATIONS FOR THE LAW TRIPOS EXAMINATION IN FORCE TILL 1881 INCLUSIVE.

1. THAT all Students who shall pass the Examination for the Law Tripos, so as to deserve Honours, be entitled to admission either to the degree of Bachelor of Arts or to that of Bachelor of Laws or to both these degrees at their option, and that any Bachelor of Arts who shall have passed as above stated, shall be entitled to proceed to the degree of Master of Laws without further Examination.

2. That the Examination for the Law Tripos commence on the second Monday in December.

3. That in this Examination the papers shall be allotted to the following subjects:—

1. General and Comparative Jurisprudence.
2. Passages for Translation, taken from the sources of Roman Law, particularly from Gaius, Ulpian, Justinian, and some specified portion of the Digest.
3. Questions on Roman Law and its history.
4. The English Law of Personal Property.
5. The English Law of Real Property.
6. English Criminal Law.
7. The Legal and Constitutional History of England.
8. Public International Law.
9. Essays or Problems on the subjects of Examination.

4. That it be the duty of the Board of Legal Studies to publish from time to time a list of books recommended to Candidates for Examination: and that it be competent to the said Board to limit any or all of the above-named

subjects to a department or departments of the same; provided that public notice of such limitation shall be given in the Easter Term of the (civil) year next but one preceding that in which the Examination in the subjects so limited shall take place.

5. That the names of those students who shall acquit themselves so as to deserve Honours be arranged in three classes in order of merit, and that the Examiners shall send to the Vice-Chancellor a list of those who shall acquit themselves so as to deserve the Ordinary B.A. degree, or to be excused the General Examination for the same; provided that no such Student shall be allowed the Ordinary B.A. degree unless he have acquitted himself to the satisfaction of the Examiners in at least four papers.

6. That the Examiners shall be the Regius Professor of Civil Law and three other Members of the Senate nominated by the Board of Legal Studies and elected by Grace before the Division of the Easter Term in every year; and that, if the Regius Professor of Civil Law shall be prevented from examining in any year, a Deputy to examine in his stead shall be nominated by the Vice-Chancellor and elected by the Senate.

7. That an Undergraduate or Bachelor designate in Arts may be a Candidate for Honours in the Law Tripos, if at the time of the Examination for such Tripos he shall be in his eighth term at least, having previously kept seven terms, provided that not more than ten terms shall have passed after the first of the said seven terms: and that no student of a different standing shall be allowed to be a Candidate excepting in the cases provided for in Regulations 9 and 11, unless he shall have obtained permission from the Council of the Senate.

8. That any Student who may be admitted to the Examination in his eighth term shall be required to keep that term, and no certificate of approval shall continue in force, unless it shall appear, when such Student applies for admission to the degree of Bachelor of Arts or Laws, that he has kept the said eighth term.

9. That a Student who has been admitted to the degree of B.A. *jure natalium*, or is a Candidate for such degree, may be a Candidate for Honours in the Law Tripos if at the time of the Examination for such Tripos he shall be in his sixth term, having previously kept five terms, provided that not more than ten terms shall have passed after the first of the said five terms.

10. That any such Student who may be admitted to the Examination in his sixth term shall be required to keep that term, and no certificate of approval shall continue in force, unless it shall appear, when such Student applies for admission to the degree of Bachelor of Arts, that he has kept the said sixth term.

11. That Students who have obtained Honours in any Tripos be allowed to be Candidates for Honours in any Examination for the Law Tripos after the Examination in which they obtained such Honours: provided that no such Student shall present himself as a Candidate for Honours in the Law Tripos on more than one occasion, or when more than thirteen terms shall have passed after his first term of residence.

12. That persons who, being already Bachelors of Arts and not having obtained Honours in the Law Tripos, desire to proceed to the degree of Master of Laws, shall be required to satisfy the Examiners in the papers numbered 4, 5, and 6, and to pay a fee of £3. 3s. to the Regius Professor of Civil Law: provided that no person shall be admitted in virtue of this Regulation, to the degree of Bachelor of Law, unless he shall have obtained Honours in some Tripos.

13. That the days of general admission of Bachelors in Law in every year be the last Saturday in January and the first day of the following Easter Term.

14. That Students, who, having obtained Honours in the Law Tripos, desire to be admitted to the title of Bachelor of Arts, be entitled to admission in every year on the last Saturday in January or on the first day of the following Easter Term.

REGULATIONS FOR THE LAW TRIPOS EXAMINATION TO COME INTO OPERATION IN EASTER TERM, 1882.¹

1. THAT in this Examination the papers shall be allotted to the following subjects :

1. General and Comparative Jurisprudence.
2. Passages for Translation, taken from the sources of Roman Law, particularly from Gaius, Ulpian, Justinian, and some specified portion of the Digest.
3. Questions on Roman Law and its history.
4. The English Law of Personal Property.
5. The English Law of Real Property.
6. English Criminal Law.
7. The Legal and Constitutional History of England.
8. Public International Law.
9. Essays or Problems on the subjects of Examination.

2. That it be the duty of the Board of Legal Studies to publish from time to time a list of books recommended to Candidates for Examination : and that it be competent to the said Board to limit any or all of the above-named subjects to a department or departments of the same ; provided that public notice of such limitation shall be given in the Lent Term of the civil year next but one preceding that in which the Examination in the subjects so limited shall take place.

3. That the names of those Students who shall acquit themselves so as to deserve Honours be arranged in three classes in order of merit, and that the Examiners shall send to the Vice-Chancellor a list of those who shall acquit themselves so as to deserve the ordinary B.A. degree, or to be excused the General Examination for the same ; provided that no such Student shall be allowed the ordinary B.A. degree unless he have acquitted himself to the satisfaction of the Examiners in at least four papers.

¹ The Examination commences upon the Monday after the last Sunday but one in May.

4. That the Examiners shall be the Regius Professor of Civil Law and three other Members of the Senate nominated by the Board of Legal Studies and elected by Grace before the Division of the Michaelmas Term in every year: and that, if the Regius Professor shall be prevented from examining in any year, a Deputy to examine in his stead shall be nominated by the Vice-Chancellor, and elected by the Senate.

5. That persons who, being already Bachelors of Arts and not having obtained Honours in the Law Tripos, desire to proceed to the degree of Bachelor or Master of Law, shall be required to satisfy the Examiners in the papers numbered 4, 5 and 6, and to pay a fee of £3. 3s. to the Regius Professor of Civil Law: provided that no person shall be admitted in virtue of this Regulation, to the degree of Bachelor of Law, unless he shall have obtained Honours in some Tripos.

6. That each of the three Examiners elected by the Senate shall receive Thirty Pounds from the University Chest.

Common to the Law and other Triposes.

3. A Student may be a Candidate for Honours in the Moral Sciences, Law or Historical Tripos, if at the time of such Examination he be in his eighth term at least, having previously kept seven terms: provided that nine complete terms shall not have passed after the first of the said seven terms, unless the Candidate shall have previously obtained Honours in one of the Honours Examinations of the University, in which case he may be a Candidate provided that twelve complete terms shall not have passed after the first of the said seven terms.

4. No Student of a different standing shall be allowed to be a Candidate for Honours in any of these Examinations unless he shall have obtained permission from the Council of the Senate.

5. No Student who has presented himself for any of the above Examinations may present himself on another occasion for the same Examination.

7. A Student who shall pass the second part of the Examination for the Classical or Natural Sciences Tripos, or

the Examination for the Moral Sciences, Law, or Historical Tripos, shall be entitled to admission to the degree of Bachelor of Arts provided that he shall have kept the requisite number of terms at the time when he applies for his degree.

8. A Student who shall obtain Honours in the Examination for the Law Tripos shall be entitled to admission to the degree of Bachelor of Laws either instead of or in addition to that of Bachelor of Arts.

10. The Examinations for the Classical Tripos (first part), Moral Sciences Tripos, Natural Sciences Tripos (first part), and Law Tripos shall commence upon the Monday after the last Sunday but one in May.

13. If Ascension Day fall upon any of the days fixed for one of the Honours Examinations, there shall be no examination on Ascension Day, but all the examinations affected by these regulations which begin not later than Ascension Day shall begin one day earlier (exclusive of Sunday) than is here provided.

16. The Class Lists for the Moral Sciences Tripos, Natural Sciences Tripos (second part), Law Tripos and Historical Tripos shall be published not later than 9.A.M. on the Friday after the second Sunday in June.

APPENDIX (B).

Much want of uniformity having for some time prevailed in the *style* of Law degrees at Cambridge, the present seems a convenient opportunity for placing the matter upon a more satisfactory footing for the future.

By the formulas now in use, the three degrees of Bachelor, Master, and Doctor are all taken alike *in jure*, i. e. in Law generally. The *style*, therefore, of the subject-matter should be the same for all three. If the matter were *res integra*, the Latin J.D.; J.M.; J.B. (for Juris Doctor, &c.) and the English D.L.; M.L.; B.L. (for Doctor of Law, &c.) would probably be the best. We have however, in time-honoured

existence, LL.D. (Legum Doctor), and the less historical titles, which must however, for uniformity's sake, go with the former, of LL.M. and LL.B. (Legum Magister and Baccalaureus).

Should the style of LL.D. be found not inappropriate to the present forms of admission and subjects of study, it would be a pity to abandon a title so well known and which has been considered distinctive of a Cambridge degree. If LL.D., &c. are retained, the only objection to the adoption of an English style D.L., &c. by the side of these, is the needless multiplication of symbols and the possible confusion of Doctor of Law with Deputy Lieutenant (D.L.) or Master of Law with Licentiate of Medicine (M.L.).

The word *lex*, in the phrase *Legum Doctor*, is popularly considered to bear the later and unclassical meaning of *body of law*¹, and the plural *legum* to refer to *two* systems or bodies of law, the Civil and the Canon, a degree in which is more classically designated by the phrase *Juris utriusque Doctor*. This interpretation of *Legum Doctor* is possible, as the phrase most probably arose in times of non-classical Latinity and was certainly in use with us when degrees were regularly conferred in the canon as well as in the civil law. But another interpretation appears more probable. The particular extracts in the Digest were known and referred to in the middle ages under the name of *Lex* (e.g. *Lex profectitia* or *Lex 5. D. de jure dotium*). Hence the term *leges* was applied to the whole Digest and, by a natural extension, to the whole body of Justinian's law. These are clearly the *leges* on which Irnerius at Bologna and Vacarius at Oxford were said *legere* and *docere* about the middle of the 12th century². And, at the close of the same century, a distinction between the students of the Roman Imperial Law and the Canon Law, under the respective names of *Legistæ* and *Decretistæ*, appears to have been known in England³. The prohibition, therefore, of the teaching of *leges* in London, by a writ of Henry III. (A.D.

¹ For instances see Savigny's *Geschichte*, T. I. c. iii. §§ 37, 38; the *lex terræ* of Magna Carta (c. 29), &c.

² Selden, *ad Fletam*, capp. 6, § 2 and 7, § 3.

³ *Ib.* 8, § 1.

1234), most probably refers to the former, i.e. the Civil Law¹: as also does the invitation of Accursius by Edward I. in a writ expressly styling him *Doctor legum*². The two bodies of Civil and Canon law were, no doubt, ordinarily studied together; and it is possible that the term *leges*, proper to the former, may have been extended to cover the latter also: so that *Doctor legum* may have been used for *Doctor legum et decretalium*. The subject of Canon law was, it is well known, prohibited by King Henry the Eighth, at least as a qualification for degrees; but the plural *legum* was still retained, in the statutes published by his successor Edward the Sixth, as the style of Law degrees, and would appear to designate Roman law alone, in the statutes of Elizabeth for the University of Cambridge³. If, however, the same term included Canon law as well, in previous times, it is at least possible that the scope of it had become general, embracing *all* the law studied at the University.

In the view, taken by the present writer, that *legum* in the phrase *Legum Doctor*, has come to mean *of law generally*, and is therefore practically equivalent to *Juris*, the expression is as correct now as ever, and will cover any different systems or bodies of law which may be studied at the University. If it means, or ever meant, *of bodies of law*, the plural is correct at the present time, as the three systems of Roman, English, and International Law are studied for Examination, and a reasonable subject from any one of the three would be accepted for the Doctor's Act. The term would not indicate the *same* systems of law as it did originally, but it has been shewn to have been authoritatively retained very shortly after the prohibition of one of these. In either case it is submitted that the abandonment of an old and distinctive style, capable of an interpretation consistent with the present state of study, is eminently undesirable.

¹ Ne aliquis scholas regens de legibus in eadem civitate (Londinensi) de caetero ibidem leges doceat. See Selden, *in Fletam*, 8, § 2. The writ is misunderstood by Coke, 2 Inst. Proem.

² Selden, *ad Fletam*, 8, § 2.

³ C. 14. Doctor legum mox a doctoratu dabit operam legibus Angliæ &c.

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART VI.

DEGREES IN MEDICINE AND SURGERY.



FOURTH EDITION, REVISED.

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CONTENTS.

**Degrees in Medicine and Surgery, by Professor HUMPHRY,
Fellow of Downing College.**

DEGREES IN MEDICINE AND SURGERY.

A Qualification to practise in Medicine or Surgery may be conferred by the licence or diploma of a College of Physicians or of Surgeons; but a *degree* can be obtained only at a University. A degree in Medicine or the degree of Master in Surgery is a legal qualification to practise; and the degrees in Medicine and Surgery at Cambridge give the right to practise in every branch of the profession in any part of the United Kingdom.

DEGREES IN MEDICINE—Bachelor and Doctor—have long been given in the University. The degree of Bachelor of Medicine confers the right to practise medicine; and it confers in the University many of the privileges of the M.A. degree, but not a vote in the Senate. This last and certain other privileges are acquired with the Doctor's degree. The title of "Doctor" is often, by courtesy, accorded to a Bachelor of Medicine, but, by right, belongs only to one who has taken the degree of Doctor.

The degree of MASTER IN SURGERY gives the right to practise surgery. For the first three years the graduate has the status in the University of a B.A.; afterwards he has all the privileges of a M.A.

In the Statutes which have been recently framed by the University Commissioners there are provisions for granting a Degree of BACHELOR OF SURGERY. When these Statutes come into force it is probable that the Examination in Surgery which now forms part of the Examination for the M.B. degree will be extended, more particularly in the Clinical and Practical direction, and that the two degrees BACHELOR OF MEDICINE and BACHELOR OF SURGERY will be granted together, and that the degrees of DOCTOR OF MEDICINE and MASTER OF SURGERY will be reserved for those who desire to proceed to them after a longer course of study.

THE FOLLOWING IS AN ABSTRACT OF THE
REGULATIONS FOR DEGREES IN MEDICINE
AND SURGERY.

THE DEGREE OF BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must

1. Reside in the University two-thirds of each of nine terms, either as a collegiate or as a non-collegiate student¹.

¹ The expenses attendant on residence as a non-collegiate student are rather less than those of residence in College; and the tutorial and other fees are also less.

Information respecting the regulations for non-collegiate students may

2. Pass the "Previous Examination"¹ or present the certificates from the Local Examination, the Higher Local Examination, or the Oxford and Cambridge Schools Board Examination, which are accepted in lieu of the Previous Examination.
3. Pursue medical study for five years;² unless he has obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case four years only are required.

be obtained from the Censor, the Rev. R. B. Somerset, Orford House, Cambridge.

Cavendish College has recently been founded to enable students to come to the University at an earlier age than has been usual, and also to reside and graduate at less cost. Information respecting it may be obtained by writing to the Principal, J. Cox, Esq., at the College. Selwyn College is about to be founded for a similar purpose.

¹ This Examination consists of two Parts and Additional Subjects. PART I. one of the four Gospels in Greek; one of the Latin Classics; one of the Greek Classics, + Latin and Greek Grammar—PART II. Paley's Evidences; Euclid, Books I. II. III., Definitions 1—10 of Book V., Props. 1—19 and A of Book VI.; Arithmetic; Elementary Algebra. These must be passed by all Candidates for degrees. The ADDITIONAL SUBJECTS (Elementary parts of Algebra; Elementary parts of Trigonometry; Elementary Mechanics) must be passed, as well as Parts I. and II., by Candidates for the Honour Triposes. The Examination is in June and December; and the particular Gospel and the Classical Subjects are made known in the Easter Term of the preceding year.

This Examination may be passed in the first term of residence; and it should be passed as early as possible. The Candidate may then, at once, be registered as a medical student and commence his medical studies in the University.

It is however by far the best plan to pass, before coming up to the University, one of the Examinations, the certificates of which give an exemption from the Previous Examination. The student then begins his Scientific and Medical Studies as soon as he comes up in October. He thus not only gains time, but he has the advantage of joining the courses of lectures at their commencement. The Local Examinations are held in various towns in December; and the Higher Local Examinations in June. Information respecting them may be obtained by writing to Rev. G. F. Browne, St Catharine's College, Cambridge. The Oxford and Cambridge Schools Board Examinations are held in June, July, and December. Information respecting them will be found in the Regulations of the Board, which may be obtained from book-sellers, or by writing to E. J. Gross, Esq., Caius College, Cambridge.

² This he may do in the University or elsewhere. Commonly the first part of the time is spent in the University and the remainder at some

There are three EXAMINATIONS for the degree of Bachelor of Medicine, conducted partly by written questions, and partly *visâ voce*. The Examinations also include chemical analysis, practical histology, the recognition and description of specimens (healthy and morbid), dissections, and the examination of patients.

At each of the Examinations the successful candidates are divided into two classes, the names being placed in alphabetical order in each class.

The subjects of the first Examination¹ are—

1. Chemistry and other branches of Physics,
2. Botany.

The student may present himself for this Examination at any time after passing the Previous Examination. He is required to produce certificates of diligent attendance on one course of Lectures on Chemistry, including Manipulations, and on one course on Botany.

A fee of three guineas is paid by the student to the Registry at his office at the Pitt Press before admission to the Examination, and on each occasion of re-admission.

The subjects of the second Examination are—

1. Human Anatomy and Physiology,

Metropolitan or other recognised Hospital or School of Medicine. As evidence of Medical Study in the University the student must produce certificates of diligent attendance in each term on Courses of Lectures, or Practical Instruction, in some two of the subjects of the Examinations for Medical or Surgical degrees: *or* of diligent attendance in each term on a course of Lectures, or Practical Instruction, in one of those subjects, and *also* on the Practice of Addenbrooke's Hospital. Certificates of attendance on Lectures or Practical Instruction may be given either by a Professor of the University, or by a Teacher approved by the Senate, provided the course has been approved by the Board of Medical Studies.

¹ See Schedules at the end of this Article.

2. Elements of Comparative Anatomy¹,
3. Pharmacy and Pharmaceutical Chemistry.

Before presenting himself for this Examination, the student must have completed two years of medical study. He must have attended Hospital Practice during one year, have practised dissection during one season, and must produce certificates of having diligently attended a course of Lectures on each of the following subjects:—

1. Human Anatomy and Physiology,
2. Elements of Comparative Anatomy,
3. Pharmacy and Pharmaceutical Chemistry.

A fee of two guineas is paid by the student to the Registry before admission to this Examination and on each occasion of re-admission.

The subjects of the third Examination are—

1. Pathology and the Practice of Physic (two papers),
2. Clinical Medicine,
3. Principles of Surgery,
4. Midwifery,
5. Medical Jurisprudence.

This Examination is divided into two parts; one including Midwifery and the Principles of Surgery, the other Pathology and the Practice of Medicine and Medical Jurisprudence. Candidates are allowed to enter the two parts of the Examination at separate times.

Before presenting himself for this Examination, the student must have completed the course of medical study, must have attended the Medical Practice of a recognised Hospital during three years, and the Surgical Practice during one year,

¹ See Schedule at the end of this Article.

and must produce certificates of having attended one Course of Lectures on each of the following subjects:—

1. Pathological Anatomy,
2. The Physiological and Therapeutical action of remedies,
3. Principles and Practice of Physic,
4. Clinical Medicine,
5. Clinical Surgery,
6. Medical Jurisprudence,
7. Midwifery ; and of having attended ten cases of Midwifery.

And also a certificate of having been Clinical Clerk for six months at least at a recognised Hospital ; or of having, subsequently to the completion of his attendance on Hospital Practice, attended to Practical Medicine, with special charge of patients, in a Hospital, Dispensary, or Parochial Union, under the superintendence of a qualified Practitioner, unless he himself be duly qualified.

No fee is paid before admission to this Examination.

After these Examinations have been passed, an Act must be kept in the Schools in the following manner :

The Professor of Physic assigns the day and hour for keeping the Act, of which public notice has to be given eight days before. The Candidate reads a thesis, composed in English by himself, on some subject approved by the Professor ; the Professor brings forward arguments or objections for the Candidate to answer, and examines him *visâ voce* as well on questions connected with his thesis as on other subjects in the faculty of a more general nature. The exercise must continue at least one hour.

THE DEGREE OF DOCTOR OF MEDICINE

may be taken by a Bachelor of Medicine in the ninth term after his inauguration (this occurs on the Commencement day next following the admission to the degree). He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M. B., and to write a short extempore essay on some one (at his choice) of four topics relating severally to Physiology, Pathology, Practice of Medicine, and State Medicine, which are submitted to him.

He pays ten guineas to the Registry for the University Chest for this Act.

A Master of Arts may proceed to the degree of M. D. in the twelfth term after his inauguration as M. A. without having taken the degree of M. B. He must pass the three Examinations for M. B., and keep the Act for the M. D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on Lectures and on Hospital practice as are required of the candidate for the degree of M. B.

THE DEGREE OF MASTER IN SURGERY.

The subjects of the Examination for this degree are—

1. Surgical Anatomy,
2. Pathology and the Principles and Practice of Surgery,
3. Clinical Surgery.

Before admission to this Examination the candidate must have passed all the Examinations for the degree of M. B., and must produce certificates of having attended the surgical practice of a Hospital for three years, of having been House-Surgeon or Dresser for six months, and of having attended—

1. A second course of Lectures on Human Anatomy,

2. One course of Lectures on the Principles and Practice of Surgery,
3. Lectures on Clinical Surgery during one year,
4. Of having practised dissection during a second season.

The Examination takes place at the same time as those for M.B., and in a similar manner. The candidate is required to perform operations on the dead body, and to examine patients in the Hospital.

The Examinations for Medical and Surgical degrees take place twice annually at the end of the Michaelmas and the Easter Terms. Notices are published early in the Michaelmas and Easter Terms, stating the dates when candidates are required to send to the Regius Professor of Physic notice of their intention to offer themselves for examination and the necessary certificates. All the certificates both for M.B. and M.C. are to be sent to the Regius Professor of Physic.

On the student's commencing medical study in accordance with the requirements of the University, a Certificate to that effect in the form prescribed by the Medical Council¹, and signed by one of the Professors or Teachers, must be sent to the Registrar of the Medical Council, 215, Oxford Street, London, within 15 days of the commencement of the Medical Courses.

The form for Registration above mentioned, the schedules defining the range of subjects in the Examinations, forms for the requisite certificates, a list of the Schools of Medicine recognised by the University, and other papers may be obtained, on application, from the attendant at the Anatomical Museum.

¹ It should be observed that Professional study may have commenced before entrance at the University, and will be taken into account provided the student was registered in accordance with the requirements of the General Medical Council.

The Examinations passed and the Acts kept, the student may be at once admitted to the degrees. The fee for M.B. is £8 to the University (in the case of a B.A. £2), and a sum to the College varying from £4 to £16; for M.D. £10 to the University, and a sum varying from £6 to £17. 10s. to the College. The fees for M.C. are £18 when no previous degree has been taken, £12 in the case of a B.A. or M.B., £6 in the case of a B.A. and M.B., £1 in the case of a M.A. or M.D.

It will be seen from the preceding regulations that the candidate for Medical and Surgical degrees need not necessarily graduate in Arts. He is required only to pass the Previous Examination, and may devote all his time in the University after passing that Examination to the study of Medicine; and after passing the three Medical Examinations and keeping the Act he may be admitted to the M.B. degree.

This however is rarely done. By far the greater number graduate in Arts as well as in Medicine; and they do so for the most part through the Natural Sciences Tripos, the subjects of the Examination for that Tripos or some of them (Chemistry, Botany, Comparative Anatomy, Human Anatomy, and Physiology) being also subjects of the Medical Examinations, so that the student can be preparing for the Medical Examinations and the Examinations for the Natural Sciences Tripos at the same time. He may pursue the following plan. Provided he has, before

commencing his University course, obtained the certificates from the Local, Higher Local, or Oxford and Cambridge Schools Board Examinations, which exempt him from the Previous Examination, he may devote himself, at once on coming up (say in Oct. 1881), to Physics, Chemistry and Botany, and continue to do so till June (1882) at which time he may pass the first Examination for M.B. in these subjects. During the subsequent vacations and terms, including the long vacation (1882) immediately ensuing upon the first M.B. Examination, he may devote himself to Human Anatomy, to Comparative Anatomy and to Physiology, and, towards the end of his third year (June 1884), he may pass the first part of the Examination for the Natural Sciences Tripos and be admitted to the B.A. degree, and may also pass the second Examination for M.B. During this time he will have been attending the practice of Addenbrooke's Hospital one year (say from June 1882); and after the second Examination for M.B. he can remain for a period in Cambridge serving as Clinical Clerk or Dresser, also attending the Lectures on Pathology, Medicine and Surgery (clinical), or he can leave Cambridge and study these subjects and Midwifery in some other school.

Although, as just said, the subjects for the first and second Examinations for M.B. are subjects of the Examination for the Natural Sciences Tripos and the preparation for the latter may be carried

on concurrently with that for the former, yet it should be remarked that the character of the questions differs somewhat in the two Examinations, a rather wider range being taken in that for the Tripos than in that for M.B. The student must bear this in mind in his preparation for the two, and by doing so and passing both he will acquire a more thorough knowledge of the subjects than he would have done if he had presented himself for the Medical Examinations only.

To pass these Examinations in the period specified it need scarcely be said that the student must make good use of his time and must not be below the average in ability and application. But any one who, before coming up, has obtained the certificates requisite to exempt him from the Previous Examination, including the Additional Subjects, will not find much difficulty. It may even be accomplished by a student who passes the Previous Examination in his first term of residence.

If the student aims at a higher scientific knowledge of these subjects or any of them and aspires to greater distinction in the Tripos, he can go in for the second part of the Natural Sciences Examination in the same term (June 1884), or, if he can afford another year, in the subsequent June (1885). In the case however of his having decided to go in for the *second* part of this Examination he will do wisely to take an earlier opportunity (June 1883) of passing the *first* part.

Some, who can command the time, pursue more

fully the study of certain of the Natural Science subjects—Physics, Chemistry or other—and postpone the preparation for the Second Examination for M.B. to a later period.

Some again proceed to the B.A. degree through some other Tripos—Classical or Mathematical—and do not commence Medical or Natural Science study till that has been done.

Again some, who may not have passed in the Additional Subjects of the Previous Examination, which is required of all Candidates for a Tripos, proceed to the B.A. degree through the General and Special Examinations and pursue Medical study more or less during the course to B.A. The combination however of general and Medical studies, which this to some extent involves, is not to be recommended.

Of these modes of proceeding the one first described is likely to find most favour and is most suitable to the great number of students, who desire to obtain the University degrees and qualifications to practise with the least expenditure of time and money.

Briefly restated it is as follows :—

Entrance Oct. (1881), the student bringing, if possible, certificates exempting him from the Previous Examination; if not, he should pass that Examination in his first Term (Dec. 1881).

First Examination for M.B. June (1882).

Examination for Natural Sciences Tripos—
First Part—and Second Examination for M.B.
at the end of the third year (June 1884).

B.A. degree (June 1884).

Third Examination for M.B. two years from the
Second (June 1886); one part of this may have
been passed at an earlier period (Dec. 1885).

M.B. degree (June 1886)—perhaps B.C. or M.C.

This allows five years for obtaining the B.A.
and M.B. degrees, and it cannot be expected that
they will be obtained in less time, except by those
who have made some progress in Medical study
before they come to the University.

Whichever of the courses thus indicated the
candidate may take, he will find it the best as
well as the cheapest plan to remain in Cambridge
till he has passed the second Examination for M.B.
The opportunities for preparing for that Examina-
tion in Human Anatomy and Physiology, Com-
parative Anatomy and Pharmacy, afforded by the
Dissecting rooms, the Museums and the Physiological
Laboratory in Cambridge, are as good as are else-
where to be found. In some respects they are
better; and Addenbrooke's Hospital, where clinical
lectures are regularly given and clinical instruction
is carefully carried out, will furnish quite sufficient
means for the initiatory study of disease. After he
has passed the second Examination for M.B. the
student may still remain in Cambridge for a time
with advantage, and subsequently he will do best to

resort to some metropolitan school where there is a wider field of Hospital practice and more definite instruction in Medicine, Surgery, and Midwifery.

Between seventeen and eighteen is a good age for those who are intended for the Medical profession to come to the University. The real test however is the fitness to pass the Previous Examination, or, still better, the Examinations already mentioned whereby exemption from the Previous Examination may be obtained. It may be stated, as a general rule, that the student who can pass these Examinations is fit to come to Cambridge, and that he who cannot do so is not fit. Unless this rule is followed disappointment and dissatisfaction are likely to be experienced. One who comes at seventeen or eighteen may obtain the B.A., M.B. and M.C. degrees and be qualified to practise at twenty-two or twenty-three. Until the study of Medicine is actually commenced, no *special* training is required or even to be advised. The best training is the same good general education which experience shews to be the most suitable preparation for the other professions. To what extent this should be continued in the University must depend upon the tastes or pecuniary resources, or the prospects of University distinction and of the acquisition of a Scholarship or Fellowship, in each particular case. If there is no special reason of this or other kind for delay, it is best to begin Medical study (the various collateral Sciences are included in this phrase) as soon as the regula-

tions permit, that is, after the Previous Examination. When it is begun the whole time and attention should be given to it. An extensive and difficult science is entered upon, and it must be worked at, like any other science, with observation, with reading, and with reflection. It must not be regarded too much as a practical matter in which reading is superfluous, still less as a science to be mastered by reading only; and, above all, it is important for the student to reflect well on what he sees and hears and reads, to learn to judge for himself, and to test the statements of others by his own observation and reason. Each of the Sciences included in Medical study has become so extensive that it is impossible to do more than obtain a good elementary knowledge of them all. The student will naturally choose some to which he will give more especial attention, and may thus be preserved from the tendency to cram and superficial knowledge, which the necessity of getting up so many subjects is likely to induce. Those which are of greatest importance to the Medical man are Anatomy and Physiology, Pathology, and Practical Medicine and Surgery. For a good knowledge of these, diligent work in the dissecting-room, in the pathological museum and the mortuary, and in the hospital, is necessary to be combined with reading and attendance on Lectures. Too many subjects should not be attempted at one time; if they are, the impressions in each are likely to be imperfect, confused and evanescent. The serial division

of the subjects and the order of studying them given by the three Examinations furnish a good guide, and the candidate will do well to follow it. *First.* What may be called the preliminary or collateral subjects—Chemistry and Physics, and Botany. *Next.* Anatomy and Physiology with Pharmacy and Hospital Practice. *Thirdly.* Pathology, Medicine, Surgery and Midwifery.

With regard to Hospital Practice it is, as a general rule, best to attend either the Medical or the Surgical Practice, and not to attempt both at the same time. To profit properly by it requires not a lounging, gossiping and occasional attendance, but regularity and intentness, so that the habit is acquired of marking and duly estimating every symptom and every feature of the patient; and the observing student will soon learn that the manner of the Physician or Surgeon and the questions which he puts in investigating the several cases form the best and most practical clinical lectures which he ever gives. The seeing patients and the familiarising the perceptive and the reflective faculties with the features of disease can scarcely be commenced too early or continued too long. It may be commenced with advantage even before regular medical study is entered upon; and the impressions of cases seen at that period, when the mind is free and fresh, are very enduring, and often, in diligent and observing youths, form the foundations upon which great practical skill is based. An interval between school and the period

of regular medical study may sometimes be thus well employed by living in the house, or reading under the guidance, of some intelligent medical man and attending the practice of a Dispensary, Union, or Hospital. But when the regular and serious study of Medicine, or rather of its collaterals, Chemistry, Anatomy, &c., have been definitely entered upon at a medical school, the mind is not, or ought not to be, sufficiently free to derive much benefit from Hospital Practice; and the imperfect manner in which it is then, almost of necessity, attended under such circumstances is likely to do harm by engendering a loose, careless, desultory habit in that very work upon which the powers of observation and thought require to be in the highest degree concentrated. It is far better to allow the attention to be occupied and the mind seasoned with the preliminary or collateral subjects, till some progress has been made in them, before entering upon Hospital Practice. Chemistry, Anatomy, &c. will thus be much better and more quickly learned; and having some knowledge of them, the student will enter with greater advantage upon Hospital Practice.

The opportunities for clinical study in Addenbrooke's Hospital are very good, as good as in the metropolitan Hospitals, for the commencement of Medical education. The times of attendance of the Physicians and Surgeons are arranged so as to suit the convenience of the students as much as possible. Clinical Lectures are regularly given, and

much attention is paid to clinical instruction. It should be added that Clinical Clerkships and Dresserships are given by the Physicians and Surgeons without extra fee.

The courses of instruction in Anatomy and Physiology given in the University extend from the beginning of the Michaelmas Term to the end of the Easter Term, with a short intermission at Christmas. They are resumed in July and August. The Dissecting Rooms, the Chemical and the Physiological Laboratories are open almost throughout the year; and the study of the various subjects should not be confined to the terms, but should be continued, more or less, through the vacations. Hospital Practice, for instance, may be attended, and Anatomy worked at, by dissection and otherwise, in the vacations as well as in the terms; and the student is strongly advised to remain up during parts of the vacations for this purpose.

The books to be recommended are *Roscoe's Lessons in Chemistry*, *Ganot's Physics* and *Everett's Physics*; *Oliver's Elementary Lessons in Botany* and *Prantl's Elementary Text-book of Botany*;—*Nicholson's Manual of Zoology*, *Quain's Anatomy* or *Gray's Anatomy*, *Heath's Practical Anatomy* and *Humphry's Human Skeleton* or *Holden's* or *Ward's Osteology*, *Cleland's Animal Physiology*, *Kirke's Physiology*, *Foster's Text-book of Physiology*, also a "set of bones necessary for a student," and a disarticulated skull, which may be purchased of the attendant at the Schools. *Fenwick's Guide to*

Medical Diagnosis and *Bryant's Practice of Surgery* or *Druitt's Surgeon's Vade Mecum, &c.*, and *Green's Pathology* will be found useful during attendance on Hospital Practice. *Watson's Lectures on the practice of Medicine*, *Aitkin's Medicine* and *Cooper's Surgical Dictionary*, lately edited by Lee, or *Holmes' System of Surgery*, are good works of reference, and will be convenient for that purpose.

THE BOARD OF MEDICAL STUDIES have issued the following Schedules defining the range of the Examinations in Chemistry and other branches of Physics, in Botany and in Comparative Anatomy, for the guidance of students proceeding to Medical Degrees.

The questions may embrace :—

I. The elementary parts of the Mechanics of solid and fluid bodies ; viz. the physical properties of matter in its solid, liquid and gaseous forms : the composition and resolution of two forces acting in one plane ; gravity, weight, centre of gravity, density and specific gravity ; the mechanical powers and their properties ; the pressure of liquids and gases, the laws of diffusion of liquids and gases ; floating bodies ; the construction and use of simple hydrostatic and hydraulic machines.

II. The elementary parts of Optics : viz. the laws of reflexion and refraction ; the formation of images by single reflectors and single lenses ; the phenomena of dispersion by a prism ; the construction of the eye.

III. The general laws of Heat in relation to expansion, liquefaction and vaporization ; definition of temperature, measure of temperature, construction of common thermometers and comparison of thermometric scales. Co-

efficient of expansion; expansion of water. Tension of aqueous vapour; difference between saturated and unsaturated vapour; Dalton's laws; disappearance of heat during liquefaction of solids, and evaporation and expansion of gases. Measure of quantity of heat, specific heat. Communication of heat by conduction, convection and radiation; relative conducting powers of common substances; comparative absorption of radiant heat from different sources in passing through air, glass and rock-salt. Reflexion and absorption of heat at the surface of bodies; Newton's law of cooling as an approximation.

IV. The elements of Electricity : viz. development of electricity by friction; conductors and insulators; relation of positive and negative electric states; attraction and repulsion of electrified bodies; electroscopes. Electromotive force and potential; phenomena of current, or discharge, in conductors and in air. The laws of static induction and the action of condensers. The simple phenomena of magnetism and of magnetic induction, electro-magnets, influence of an electric current on a magnetic needle, laws of resistance, Ohm's law, laws of electrolysis, laws of dynamic induction. Construction and use of simple machines for generating electricity.

V. The elementary parts of Chemistry : viz. the definition of an element; the conditions of occurrence in nature, the preparation and the leading characters of the following elements: oxygen, hydrogen, nitrogen, sulphur, phosphorus, chlorine, bromine, iodine, carbon, potassium, sodium, iron, zinc, copper, tin, lead, mercury, silver, gold, platinum, antimony, arsenic and bismuth. The composition, preparation, and chief characters of the following compounds: water, nitrous and nitric oxides, nitric peroxide, ammonia, carbon oxides, cyanogen, olefiant and marsh gas, phosphoretted and arsenetted hydrogen, potash, soda, lime, baryta, strontia, magnesia, alumina; and the oxides of the following elements, arsenic, antimony, bismuth, cadmium, cobalt, chromium,

copper, iron, lead, manganese, mercury, nickel, tin, silver and zinc. Also the composition, preparation and chief properties of the following acids: acetic, carbonic, chloric, chromic, citric, hydrobromic, hydrochloric, hydriodic, hydrofluoric, hydrosulphuric, hydrocyanic, nitric, oxalic, common phosphoric, sulphurous, sulphuric, silicic and tartaric; and the salts of these acids with any of the metals of which the oxides are above enumerated. Also the occurrence, formation and leading properties of urea and uric acid; saccharine and amylose compounds; lactic acid; alcohol and its homologues, ethers, chloroform and chloral; the homologues of acetic acid, fats, glycerine and soap; quinia, morphia and strychnia; albumen, fibrine, caseine and gelatine. The difference between a chemical and a mechanical compound; the constitution of the atmosphere and reasons for regarding it as a mixture; theory of combustion. The laws of combination by weight and by volume; definitions of quantivalence, equivalents, and compound radicles. The expression of the reactions in any of the foregoing cases in the form of equations. Law of substitution. Determination of the quantitative composition of water, air, carbon dioxide, silver chloride, and black copper oxide. Calculation of the relative quantities of the several elements or compounds in any of the foregoing reactions, the atomic numbers being given. The elements of analysis, the detection of any of the above-named metals and acids.

In any of the five divisions above defined, simple calculations or questions depending directly upon the facts or laws specified may be proposed.

BOTANY.

The Examination will comprise Vegetable Anatomy and Physiology, the description of specimens of living plants, and the principles of classification as illustrated by the following orders:—Ranunculaceæ, Papaveraceæ, Cruciferae, Leguminosæ, Rosaceæ, Cucurbitaceæ, Umbelliferae, Compositæ, Scrophulariaceæ, Labiatae, Solanaceæ, Liliaceæ, Gramineæ, Filices.

COMPARATIVE ANATOMY.

A general knowledge of the anatomy of the Protozoa. A general knowledge of the anatomy and disposition of the digestive, circulatory, respiratory, excretory, nervous and reproductive organs in the chief divisions of the Animal Kingdom, as illustrated by the Common Polype and the Sea Anemone, the Star-fish, the Tape-worms parasitic in man, the Earth-worm and the Leech, the Lobster, the Cockroach, the Fresh-water Mussel, the Snail and the Cuttle-fish, the Whiting, the Frog, the Snake, the Pigeon, the Rabbit, and the Sheep. A general knowledge of the Vertebrate Skeleton, as illustrated by the Cod, the Frog, the Tortoise, the Pigeon, the Whale, the Dog and the Sheep.

The fees for Lectures &c. are:—

Chemistry, Lectures and Laboratory	£4	4
Botany	1	1
Anatomy and Physiology, and superintendence in Practical Anatomy.....	5	5
Comparative Anatomy	2	2
Pharmaceutical Chemistry	2	2
Addenbrooke's Hospital, Medical and Surgical Practice, one year.....	10	10
unlimited period	15	15

The above are for courses given by the Professors and fulfilling the requirements for the first and second Examinations for M.B. But there are other recognised Lectures which may be attended instead of the above or in addition to them: on Chemistry, in St John's, Caius, Sidney and Downing Colleges—on Botany, at Christ's and

Sidney Colleges—on Physiology, by Dr M. Foster, and in Caius and Downing Colleges—on Comparative Anatomy, by Mr Balfour.

There are also Lectures on the Principles and Practice of Physic by the Regius Professor; on Pathology by the Linacre Lecturer; on Physics by the Professor, and in Trinity College.

An article in the *British Medical Journal* on Medical study in the University, after referring to the first course of proceeding, which has been above described (p. 9), as the one which most students will prefer to follow; adds, "To accomplish it, they must not be idle; for it is evident from the requirements and the character of the examinations, judging from the papers we have seen, that a pretty high standard both of general and medical acquirements is to be maintained. If time and means are at command a longer period may be well employed. The student may devote more time to classical or mathematical study, or to some of the branches of natural science, and, by competing for a higher place in the Classical, Mathematical, or Natural Sciences Triposes, may be repaid by obtaining a fellowship with £200 or £300 a year, tenable for ten years or for life; which, we need not say, would materially assist him in attaining a high position in the profession. Several of the most eminent physicians in London and the provinces have been indebted for their success greatly, if not entirely, to College Fellowships added to University training."

“It will be seen that part of the period of professional study must be spent in Cambridge; and we doubt not, the opportunities afforded by Addenbrooke's Hospital and the Professors' Lectures are good. It may be well, for many reasons, that medical studies should be commenced in a quiet, systematic manner in the University; but it is unquestionably very wise that at least a half, and that the latter part of the time, should be passed at one or more of the great medical schools of this country or on the continent. The liability of the mind to be fixed in one set of notions, which is so frequently observable in those who have spent all their time at one school, is provided against by these regulations; and the student, passing from the Professors at Cambridge to the eminent teachers in other great medical schools, will be more likely to acquire the habit of thinking for himself, and of relying upon his own judgment.”

The direct inducements, in the way of pecuniary rewards, to the study of Medicine in the University are but few. In Caius College a Scholarship, tenable for three years, is given to the student who after his seventh term displays the greatest proficiency in Anatomy and Physiology; and a Scholarship is given to the student who answers best in an Examination in Chemistry. There are four TANCRED STUDENTSHIPS in Medicine, each of the annual value of £113. 8s., tenable for eight years. Candidates for these are examined in Classics and Mathematics at Caius or Christ's

College; and the result of the Examination, together with the circumstances of the candidates, is taken into consideration by the electors¹. The successful students must enter at Caius College within a month of the election, or remove to it if they be members of any other College, and must take the degree of Bachelor of Physic as soon as they are of sufficient standing for the same. Information respecting vacancies, and the mode of application for these valuable Studentships, the number of candidates for which is always very great, may be obtained from B. J. L. Frere, Esq., New Square, Lincoln's Inn.

There are however in many of the Colleges Scholarships for Natural Science²; and in some, Fellowships are awarded for proficiency in Natural Science in the same manner as for proficiency in Classics and Mathematics.

It must be remembered moreover, that the other Scholarships and Fellowships in the several Colleges, though given as rewards for proficiency in general, and not in medical, study, are open to those who purpose pursuing the study of Medicine. All may join in the competition for them. The sum annually distributed among students at Cambridge,

¹ The electors are the Masters of Caius and Christ's Colleges, the President of the College of Physicians, the Treasurer of Lincoln's Inn, the Master of the Charter-house and the Governors of Greenwich and Chelsea Hospitals.

² A list of these commonly appears in *Cambridge University Reporter* and sometimes in *Nature* early in each year.

in Scholarships and Exhibitions, has been estimated at about £26,000 annually, exclusive of University Scholarships and Fellowships.

The expenses of obtaining medical and surgical degrees in Cambridge, including those of residence, University and other fees, are estimated at about £150 per annum, during the residence in the University and during the subsequent residence in London or elsewhere ; and as five years are required, the sum total is about £750. This is probably very near the mark ; though, of course, the expense varies very much with the habits of the student. It need not, especially in the case of a non-collegiate student or of a student at Cavendish College, amount to so much as £100 per annum. For further information on this head we must refer to the article on University Expenses.

THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART VII.

NATURAL SCIENCES TRIPOS.



FOURTH EDITION, REVISED.

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CONTENTS.

The Natural Sciences Tripos, by G. D. LIVING, M.A.,
Fellow of St John's College, and Professor of
Chemistry.

NATURAL SCIENCES TRIPOS.

THE Natural Sciences Tripos was instituted in 1851 for the purpose of giving some encouragement to the pursuit of certain branches of Natural Science, which, although long recognised among the studies of the place, had not heretofore been honoured in the same way as those branches to which Newton's investigations had given a special interest. Custom, and the necessity of marking out a definite course for the student when new investigations were continually enlarging the boundaries of natural philosophy, had, until quite recently, excluded from the examination for the old Tripos all natural science except Mechanics in its various applications and Optics. The examination for the Natural Sciences Tripos embraces the greater part of the other branches of natural science; that is to say, the following subjects :

Chemistry, and the other branches of Physics most nearly connected with it, Mineralogy, Geo-

logy, Botany, Zoology, Anatomy Human and Comparative, and Physiology.

This is evidently an enormous range, and without some limitation quite beyond the powers of any student. Any one of these subjects might well be the study of a life. But the same might be said of Astronomy or Philology. And just as in the Mathematical and Classical Triposes it is not expected that every candidate will be acquainted with all the details into which profound astronomers or accomplished scholars have carried their investigations; so in the Natural Sciences Tripos it is not expected that every one who takes honours should know all the complicated details of organic chemistry, or the minute specific differences of plants and animals. It is expected, however, that he should have laid a good foundation by mastering the general principles of science and their most important direct applications. To do even this in the three years of an undergraduate's course at the University, with all the sciences above enumerated, is beyond the power of most even of the candidates for honours, so that no candidate is required to be acquainted with all these sciences; his position in the final Class list depends generally on his knowledge of some one section of them. Nevertheless, there is a connexion between them which is more real than may appear at first sight, and makes it desirable that those who study one should also learn something of others. For instance, in order to attain a thorough knowledge of any

one of the natural sciences, some acquaintance with Chemistry and Physics will be found necessary. For Chemistry and Physics teach laws of matter which are universal, and which find their applications whenever the structure of natural objects is under consideration. The Physiologist, whether he study the animal or vegetable kingdom, cannot advance a step without a knowledge of these laws, and Mineralogy is only the Chemistry and Physics of those compounds which are found ready formed in the inorganic world. Again, the Geologist needs to be practised in almost every department of physics; for the study of masses of rock requires a knowledge of the minerals of which they are made, and of the forces by which they are moved or altered; and Palæontology, on which a large part of Geology depends, is only the Botany and Zoology of a former age. The philosophy employed is of course much the same in all; the collection of facts by observation and experiment, the comparison and classification of facts thus obtained so as to trace the operation of general laws, and the confirmation afterwards of the truths of these laws by deduction and reference again to the phenomena of nature.

The sciences of matter and motion, Chemistry and Physics, can of course be studied independently of other sciences, and so may those parts of Natural History which deal only with the forms and classification of plants and animals; but the chemist whose study is confined to dead matter will get

but a limited view of nature, and the botanist or zoologist whose attention is absorbed in the observation of specific characters without understanding the general principles on which the functions of organs depend will get a very narrow and one-sided education. In order then to stimulate students to lay a good foundation by acquainting themselves first with the fundamental properties of matter and learning something of the typical structures of organic beings and the simplest laws of their life, and at the same time to give them the opportunity of obtaining distinction by a thorough knowledge of some department of Natural Science, the Tripos examination is divided into two parts.

In both parts questions are proposed on all the sciences above mentioned, but in Part I. the questions are of a comparatively elementary character and not more in number than a well-prepared student may be expected to answer in the time allowed. Those proposed in the first three days have to be answered in writing, and afterwards two days are devoted to oral examination and practical work in all the subjects. This first part is to test general knowledge, and as far as it goes is complete in itself. A student who has begun residence at the usual time in October and has passed the Previous Examination can present himself for Part I. in the May either of his second or his third year, but no one is allowed to present himself for the examination a second time. A student who has previously obtained honours in

some other Tripos may present himself for this part in his fourth year of residence. The names of those who pass this part of the examination with credit are published in three classes in alphabetical order in each class ; and the class of each candidate is determined by the aggregate knowledge shewn by him in all the subjects ; but in order to discourage superficial study the examiners are not to give credit for answers which represent a mere smattering of any subject.

Probably many may be unable for various reasons to pursue Natural Science further at the University, and such may, if they pass this examination in their third year of residence, get the B.A. degree without further examination.

It ought to be mentioned here that Human Anatomy (which is really a department of general anatomy) is specially named in the examination in order that medical students may be encouraged to obtain a general training in Natural Science while they are acquiring some of the special knowledge which is a necessary preparation for their profession, and in order that they may not be dissociated from their fellow students in general at too early a period of their academic course. At the same time the structure of the highest vertebrate is not only of surpassing interest to the student of general anatomy, but affords ample materials for instruction.

A Board is appointed to keep a watch on all matters relating to the studies and examinations in

natural science in the University, and to make such suggestions regarding them as they may from time to time think fit. This Board consists of the Professors of Chemistry, Anatomy, Botany, Geology, Mineralogy, and Comparative Anatomy and Zoology, together with the Examiners for the Natural Sciences Tripos in the current and next preceding years, and three Members of the Senate elected by grace.

This Board has power to define from time to time what is to be included in the several branches of science in which the examination is held, and to specify which parts are suitable for Part I. The Board has not thought it desirable, at present, to define the range of questions to be set in Part II., but the following indicates the limits thought desirable for Part I.

The questions in all the subjects will be of a comparatively elementary character, and will be such as to test a knowledge of principles rather than of details. Specimens may be exhibited for description and determination.

In Physics the questions will be limited to the elementary and fundamental parts of the subject, and, in particular, special attention will be paid to the definition of physical quantities, the general principles of measurement, the configuration and motion of a material system, the laws of motion, and the comparison of forces and of masses. In Sound, Light, Heat, Electricity and Magnetism, only the fundamental laws, their simpler appli-

cations, and the experiments which illustrate them, will be required.

In Chemistry the questions will relate to the leading principles and experimental laws of Chemistry, the properties of the commoner elements and their principal inorganic compounds, the outlines of metallurgy, and simple qualitative and quantitative analysis.

In Mineralogy the questions will be confined to Elementary Crystallography, the general properties of minerals and the special characters of those species only which are of common occurrence.

In Geology the questions will be limited to Physical Geography, the interpretation of the structure of the crust of the earth and the history of its formation, so far as to involve only the elementary parts of Palæontology and Lithology.

In Botany the questions will relate to the elementary parts of Vegetable Morphology, Histology, and Physiology; and to the principles of a natural system of classification. Candidates will be required to describe flowering plants in technical language. Questions will not be set in the first three days on Vegetable Palæontology, the Geographical Distribution of Plants, or details of classification.

In Zoology with Comparative Anatomy minor details will not be included in the questions relating to classification. Geographical distribution of animals is held to be a part of Zoology, and Com-

parative Anatomy includes the structure of extinct as well as of recent forms.

Human Anatomy will include the mechanism of the human body, the comparison of its parts with those of lower animals, its development, &c.; but the questions will be of a simple and elementary character.

The several branches cannot by such limitations be made of quite equal difficulty, and as the eight branches (Physiology being the eighth) are taken as of equal weight in deciding the Class list, the Examiners have to make the examination as fair as they can by discretion in the choice of their questions; and as a help to this no question is proposed in the printed papers which has not previously been approved by the examiners collectively; and it is directed that the answers to each question shall as far as possible be examined by two of the examiners.

Those who have already obtained honours in Part I., and no others, may offer themselves for examination in Part II.; and have the choice of doing so, once for all, either in their third or fourth year. One who has been classed in Part I. in his second year will thus have a clear year, or, if he can afford to spend so long time at the University, may have two clear years to prepare for Part II. It is possible also for a student to take the examinations in both Part I. and Part II. at the end of his third year, as it is provided that the Class list in Part I. shall be issued the

day before the beginning of the examination in Part II.

This second Part is intended to test the training of the student not so much by the range of his knowledge as by its thoroughness ; and his place in the Class list depends principally on his proficiency in one, or more, of the following subjects :

(1) Chemistry, (2) Physics, (3) Mineralogy, (4) Geology, (5) Botany, (6) Zoology and Comparative Anatomy, (7) Physiology, (8) Human and Comparative Anatomy, (9) Human Anatomy and Physiology.

But thoroughness in education (and it should be remembered that the Tripos aims at educational not professional training) does not mean continuous drivelling in one groove, but the mastery of a subject in all its bearings. A man may be most expert in systematic botany or have learnt all the constitutional formulæ of complicated carbon compounds and yet be a very ill-educated man if his mind has been exercised only in that way. A thorough knowledge of one subject then, for the purpose of the Tripos, means a knowledge of it all round and of those other sciences which bear upon it. Thus Chemistry is physical as well as descriptive, and cannot adequately be studied without reference to other branches of molecular physics ; and the distribution of life is so closely connected with the physical condition of the globe, that one cannot be studied properly without the other. A knowledge then of such other branches

of science as bear upon that to which the student has mainly devoted himself is always taken into account; and indeed he is expected to shew such knowledge, and will not be placed in the first class unless he shew a competent knowledge of at least one subject besides that which he has specially pursued.

As explained in reference to Part I., Human Anatomy is introduced into the examination on the supposition that medical students may, without too great a sacrifice of time, study it in such a way and in such connexion with other branches of science, as to give them a good education and entitle them to the same sort of distinction as the students of other Natural Sciences. It cannot however be reckoned as a complete subject taken by itself.

The inequality in extent and difficulty of the several subjects which enter into this examination is of little consequence as there is no personal competition between the candidates, and a note is attached to each name in the first class stating the subject for knowledge of which he is there placed. Cases of special distinction are also notified. Thus degrees of merit are marked sufficiently to give a stimulus to exertion without encouraging too nice a calculation of what parts of a subject will obtain most credit.

In the second, as in the first part, the first three days are given to the writing of answers to printed questions, and then as many more days as

may be needed are given to *viva voce* and practical work. In order to give each candidate the opportunity of shewing his knowledge about three questions on each of the subjects are proposed in each paper, so every one well prepared has enough to occupy him during the time allotted and some choice of questions in those subjects which bear upon but have not formed his main study. Some of the questions have reference to the History and Philosophy of the Sciences.

Eight Examiners, who are nominated by the Board and elected by the Senate, conduct the examination, and usually the same examiner is appointed two or three years in succession, so that only a part of the whole number is changed in any one year, and a continuity in the character and conduct of the examination is maintained.

The course which the student who proposes to take honours in Natural Sciences is advised to pursue is somewhat as follows. He should begin his study of some one of the natural sciences as early as possible. New ideas always require some time to settle in the mind, and have to be looked at first on one side and then on another before their relations are clearly perceived. Besides, in all natural sciences there are a great many facts with which the student has to become acquainted, and for this alone time is required; so that he who aspires to a high place will not find the whole of his three years too long for his course of study. If he have not previously to the commencement of his residence passed an

equivalent examination, such as that of the Oxford and Cambridge Schools Examination Board, or the Local Examinations in the same subjects, he will have to work at Classics, or Mathematics, or both, in order that he may pass the Previous Examination, but unless he can get this over by the end of his first term, which will depend on his previous preparation for it, he should be acquiring some familiarity with one of the natural sciences at the same time. Supposing him to have had little or no previous acquaintance with any of the natural sciences, he will probably find it best to begin with studying the principles of Physics and Chemistry, because, as has been before mentioned, all the rest lean more or less upon these sciences. It is not however necessary to begin with them; the student may take Botany or Zoology first; but sooner or later he will want to learn the functions as well as the forms and development of the parts of plants and animals, and will be obliged to make himself acquainted with the elements of Chemistry and Physics. If he has once done this he may devote his chief attention to any one of the other sciences, and in every case it will be well for him to choose one subject on which to concentrate his powers, and not attempt a second until he has become well grounded in the first. Each must be guided by his own taste in selecting his subjects, but in general if he is already acquainted with any considerable number of the facts or phenomena

with which any branch of science deals, it will be easiest for him to pursue that branch.

Before beginning the study of Chemistry, it is very desirable that the student should have some acquaintance with the laws of pneumatics, of heat, and of electricity. If then he is not already more or less familiar with these things, he had better begin by attending a course of experimental lectures and studying Everett's *Text-book of Physics*, or Ganot's *Physics*, Balfour Stewart's *Conservation of Energy*, and Tyndall's *Heat as a Mode of Motion*, or some other treatise on these subjects. He can next proceed to attend lectures on Chemistry. Roscoe's *Lessons* will be found an excellent introduction to, and a convenient syllabus, of the subject; or he may use Miller's *Introduction to the Study of Inorganic Chemistry*; they may be supplemented by Cooke's *New Chemistry*. No student can get adequate conceptions of physical facts so as to be able to reason upon them with certainty unless he has himself observed them. Hence it is well that the beginner should not only attend a course of lectures illustrated by experiments, but also, if possible, himself perform a course of experiments under the direction of some competent instructor.

Analytical Chemistry can only be learnt by actual practical manipulation in the laboratory. The student may commence a course of analysis as soon as he pleases, as it requires little previous reading. He will have to begin with making him-

self familiar with the reactions of the most common chemicals, and then proceed to determine experimentally the metals and acids contained in some simple salts, and afterwards those in more complicated compounds. He will want some book to work by, and perhaps Bloxam's *Laboratory Teaching* or Dittmar's *Chemical Analysis* will serve his purpose. There are however many other manuals on this subject which will do equally well. On the blow-pipe Scheerer's little book, or Fuchs', will be found extremely useful. In working at analysis the student should aim not at learning a rule of thumb for getting out results, but at exercising his power of observation and understanding the chemical action at each step, in order to be able to check his own work and find a way out of a difficulty for himself.

In Mineralogy the student, if acquainted with Spherical Trigonometry, had better begin with Miller's *Tract on Crystallography*, or the larger work of the same author, and if not much of a mathematician, he may acquire a knowledge of the laws of crystalline forms from Gurney's *Crystallography*, with the help of a series of models of crystals¹, and some actual crystals to compare with them. The other characters of minerals can only be learnt from an examination of specimens. Specimens are exhibited in the Mineralogical

¹ A useful series of porcelain models is sold by J. J. Griffin, of Garrick Street, London, and wooden models may be had from dealers in minerals.

Museum, and those who attend the lectures of the Professor of Mineralogy have the opportunity of examining them closely; but in any case it would be well for the student to procure specimens of the most common minerals, that he may himself test their hardness, streak, &c. Such specimens, as well as detached crystals, which are a great assistance in the study of Crystallography, may be procured from dealers¹. Dana's *Manual of Mineralogy and Lithology* will be found sufficient for Part I., but he uses Naumann's crystallographic notation instead of the easier and more elegant system of Miller: a fault from which other manuals are not free.

There is no branch of Natural Science in the pursuit of which it is easier to acquire an interest than Geology, nor any for the deeper study of which so much previous training is required. All branches of physical science, including the laws of organic life, are applied more or less in Geology. This is not said to discourage students from attempting this subject, but to put them on their guard, because the popular literature on Geology might easily mislead them; and an elementary, but exact, knowledge of physics, chemistry, mineralogy, and of the types of living beings, forms the only sound foundation for the study of it. As an introduction Lyell's *Principles of Geology*, especially Chapters VI. to XXXIII., is indispensable. It

¹ Such as Gregory in Charlotte Street, Fitzroy Square; or Russell in Essex Street, London.

seems a large book to begin upon, but no other adequately explains the causes which are now modifying the earth's surface and their relations to its past history. For descriptive Geology Lyell's *Students' Elements*, and for English Stratigraphical Geology Woodward's *Geology of England and Wales* may be used; and to these should be added Nicholson's *Life History of the Earth*. The student should make such observations in the field as may be within his reach. An examination of the strata in the Isle of Wight, the neighbourhood of Weymouth, or some other locality where much may be seen in a small compass, would give a clearness to his conceptions on the subject which could hardly be acquired by the most careful study of books, maps, or models. Bonney's *Cambridgeshire Geology* will be a guide to him in the observation of the country around Cambridge. For reference on Mineralogy Dana's work above mentioned, or Rutley's *Mineralogy* may be used, and Rutley's *Petrology*.

The maps and sections of the Geological Survey, so far as they are published (which may be learnt from Longman's catalogue), will be found very useful in helping the student to study the geology of any neighbourhood in which he may happen to be placed.

Coming now to the biological sciences the beginner will save time by first obtaining a general view of organic life by attending a course of lectures on elementary biology and studying Huxley and Martin's *Elementary Biology*. A

course of this kind is given by the Trinity Prælector in Physiology in the Easter Term and will serve as an introduction not only to Comparative Anatomy, but also to Botany and Physiology.

If then the student turn to Botany he will find either professorial or intercollegiate lectures on that subject in every term, and he should first pay attention to Morphology and exercise himself in the observation of the parts of any common plants with and without a lens. As a text-book he may use Prantl's *Treatise on Elementary Botany*, edited by Vines, or Silver's *Elementary Botany*. He may go on to dissect typical plants of the most important orders and at the same time study the outlines of the natural system of classification, and bring the terminology he has previously learnt into use by practising the description of plants in technical language. He should also examine all the British plants that he may find in the country, so as to determine their characters and identify them by the use of some good British flora such as Bentham's *Handbook of the British Flora*, Babington's *Manual*, or Hooker's *Flora*. Babington's *Flora of Cambridgeshire* will be a good guide as to the plants which are to be found in the neighbourhood of Cambridge and the localities in which they occur.

If he turn to Zoology and Comparative Anatomy, he should, after the course of elementary Biology, attend an elementary course of Com-

parative Anatomy (Morphology) accompanied by practical work. For this he may read Macalister's volumes on Vertebrate and Invertebrate Zoology, and parts of Huxley's *Anatomy of Vertebrated Animals*, and his *Anatomy of Invertebrated Animals*. He should also study for himself in the Museum of Zoology and Comparative Anatomy the elements of the Osteology of the Mammalia, and for this purpose he will find Flower's *Osteology of the Mammalia* his best guide. Other books suitable for beginners on Zoology are Milne-Edwards' *Éléments de Zoologie*, and Nicholson's *Zoology*.

A course of lectures on elementary Physiology in sequel to those on elementary Biology, and suitable for those preparing for Part I., is given in the Michaelmas and Lent Terms. The text-books for this course are Huxley's *Elementary Lessons in Physiology*, Foster's *Text-book* and Foster and Langley's *Practical Physiology*.

For Part II. it is not possible to lay down rules which will suit all. Each must choose for himself the branch of science which he will principally study, and should endeavour to make his knowledge of that branch as thorough as possible, not merely in the way of reproducing what the best authors may have written thereon, but in the exercise of his own mind in grasping their views on difficult or controverted points and tracing their logical consequences. As to the text-books he should use and the area which his reading can profitably cover, his best plan is to take the advice

of the lecturers whose courses he is attending ; and the following remarks must be read with the understanding that he will temper them with such advice.

The student who chooses Physics for his chief study cannot pass by Chemistry, and vice versa ; but the physicist need not burden his memory with all the details of descriptive chemistry, and will find an equivalent exercise of his powers in learning the explanation of the natural phenomena of the earth and sky, the properties of minerals, and the physiology of the senses of sight and hearing, besides the daily increasing industrial applications of physical principles. As general text-books perhaps Deschanel's *Natural Philosophy*, and Jamin's *Cours de Physique* or that of Verdet, will be found most useful. On Heat Clerk Maxwell's *Theory of Heat* should be well studied, and Balfour Stewart's *Treatise on Heat* will supply the fundamental facts on this subject with which the student need be familiar. Jenkin's *Electricity and Magnetism* will supply the like for that subject, and the mathematical proofs of the formulæ which are assumed in that work will be found in Cumming's *Theory of Electricity*. Mathematics are not excluded from the examination, but the questions turn on physical principles and the experimental rather than the mathematical treatment of the subject. Some chapters in Clerk Maxwell's *Theory of Electricity* may be read with advantage by those who have only a limited acquaintance with mathematics.

On Chemistry Bloxam's *Chemistry* is a good book to follow such a treatise as Roscoe's *Lessons*. Larger manuals are Miller's *Elements of Chemistry*, and Roscoe and Schorlemmer's *Treatise on Chemistry*. In using these somewhat lengthy collections the student should try to trace in the mass of material general laws and frequently occurring relations, rather than attempt to remember too many details. There is no good manual of physical Chemistry, or the explanation of chemical action by reference to general mechanical principles, so that the student will have to depend much on lectures for this part of the subject, and such books of reference as the lecturer may recommend. Various articles in Watts' *Dictionary of Chemistry* may be referred to on questions of physical and theoretical Chemistry; and on the relations of Heat to Chemistry Berthelot's *Essai de Mécanique Chimique* deserves special study. An account of modern Chemical Philosophy will be found in Wurtz's *Leçons de Philosophie Chimique*, of which there is an English translation, and in the *Théorie Atomique* of the same author. For quantitative Analysis Fresenius' *Manual* is most useful; and for practical spectroscopic analysis Lecoq de Brisbandran's *Spectres lumineux* is by far the best. On the application of the spectroscope to solar and stellar Chemistry, Schellen's *Spectrum Analysis* should be read.

Mineralogy comes as a natural and easy sequel to the study of Physics and Chemistry. Dana's *Text-book of Mineralogy*, or Nichol's *Manual*, may

be used as a text-book. Dana's *System of Mineralogy* is a somewhat larger work but hardly better for the student. Some valuable details on the optic and crystallographic characters of minerals will be found in Des Cloiseaux's *Manuel de Mineralogie*. On the formation of minerals Daubrée's *Etudes synthétiques de Géologie expérimentale* may be consulted.

On Geology, besides the books named under Part I., the student may read with advantage Croll's *Climate and Time*, Ramsay's *Physical Geography and Geology of Great Britain*, Judd's *Volcanoes*, Lyell's *Antiquity of Man*, and Nicholson's *Palæontology*. On the geology of particular localities various valuable treatises and memoirs have been published which will be useful or indispensable aids to those who are studying any of these localities, but are too numerous to be recited here. This study of localities, with field observation, is the only way to get a real insight into many geological questions; and the student will find that in the problems which nature offers him he will have ample scope for the application of as much and as many of the other branches of natural science as he can command, and that his power of working out this or that problem in Geology is mainly limited by his knowledge of some other science. The dynamical problems will tax his knowledge of mechanics, the petrological his knowledge of chemistry and molecular physics and so on. The Botanist and the Zoologist will naturally include

fossil Botany and fossil Zoology in his survey of the vegetable and the animal kingdoms respectively; but for the Tripos one who makes Geology his principal study will probably find it sufficient to make himself acquainted with those typical and characteristic forms of plants and animals which are of most use in the classification of strata.

For Part II. in Botany the student should attend some one or more of the advanced courses of lectures on histology and physiology, and join a class for practical microscopic work. The best advanced text-book is probably Sachs', either in the original German or in a translation. Various books treating on parts of the subject will be indicated to the student by his teachers.

The student who makes Botany his principal study will find much in the other sciences to fall in with it. The more Physics and Chemistry he knows the better the foundation for the study of Physiology. Fossil Botany brings him in contact with Geology and the important problems of the changes in life by time and circumstance. In these problems, as in many other points, the vegetable and animal kingdoms have much in common, and such general questions ought to be studied with reference to both of them.

And here it may be mentioned that no student of Biology, indeed no student of Natural Science, should omit to read Darwin's *Origin of Species*. Other works by the same author such as the *Descent of Man* are of hardly less value for clear-

ness of exposition and fertility of illustration. To these may be added Wallace's *Island Life*.

Those who make Zoology and Comparative Anatomy their principal study should make Huxley's work on Comparative Anatomy, before mentioned, their text-book throughout. In their second year they may attend a course of lectures on Vertebrate Embryology and read for that course Balfour's *Comparative Embryology*, Vol. II. pp. 1—257. Advanced courses on Morphology, Vertebrate and Invertebrate, may follow. Besides the books above mentioned, they will require to read Gegenbaur's *Elements of Comparative Anatomy*, and such other works as their lecturers may advise.

On systematic Zoology, those who read French or German may use with advantage Claus's *Zoologie*, which has been published in both languages, but much may also be learnt in the Museum, where typical specimens of some classes have been selected and arranged especially for the student's use.

The study of the structure of living beings leads to that of the processes of life and the mode in which the organs perform their functions, or Physiology. For this subject the text-books will be the same as for the elementary course with the addition of such special reading of monographs and papers as may be recommended by the lecturers.

There may be some students of Biology to whom the laws of development and modification of living organisms are particularly attractive, and

they will probably wish to study the past history of life on the earth and the causes of its changes, and will make Geology their pursuit in the second place.

In choosing his line of study for Part II. whatever it be, the student should take care that it is a connected one as well as a comprehensive one leading up to the elucidation of some of the laws of nature, which he should keep before him as his ultimate aim. And in this view he ought to pay attention to the methods and logical processes by which great thinkers have built up our knowledge, to the History and Philosophy of the sciences. This is good for all, but, though too much neglected, is especially necessary for the student of Natural Science, because the questions he has to discuss and the arguments he has to weigh cannot always be expressed with mathematical simplicity. For this he should read Whewell's *History of the Inductive Sciences*, *History of Scientific Ideas*, *Philosophy of Discovery*, and *Novum Organum Renovatum*, and Herschel's *Introduction to the Study of Natural Philosophy*. On that part which relates to Chemistry he may also refer to Thomson's *History of Chemistry*, which though long since out of print may be found in libraries in the series called the "National Library;" and to Wurtz's books already mentioned. In Lyell's *Principles* he will find a good history of Geological Science.

The foregoing remarks do not pretend to be more than a sketch, for the purpose of giving

students a notion of the course of reading they should pursue. It must not be forgotten that precisely the same course is not suited to every one; some can do more than others. The books named too are not by any means the only ones suitable. Moreover, as science progresses these books will become more or less obsolete, so that the reader must bear in mind the date of this publication. However, when the student has made up his mind which science he will pursue, he can generally consult the Professor of that science as to the books which will place before him the newest discoveries.



THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

PART VIII.

MORAL SCIENCES TRIPOS.



FOURTH EDITION, REVISED.

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CONTENTS.

On the course of Study preparatory for the Moral Sciences Tripos. Edited¹ by H. SIDGWICK, Prælector of Moral and Political Philosophy in Trinity College, Cambridge.

¹ The special recommendations relating to (1) Political Economy, (2) Logic and Methodology, and (3) Psychology, have been mainly contributed by (1) H. S. Foxwell, Esq., (2) the Rev. J. Venn and J. N. Keynes, Esq., and (3) J. Ward, Esq.; and a small portion of the general advice given in the corresponding part of the last edition of the 'Student's Guide' has been retained in this edition.

MORAL SCIENCES TRIPOS.

THE course of study for the Moral Sciences Tripos,—as defined by the scheme of Examination, which will come into operation in the Tripos Examination of 1883 and subsequent years,—includes the following subjects: Logic and Methodology, Political Economy, Psychology, Metaphysics, Moral and Political Philosophy.

The Examination in these subjects will take place in the week after the last Sunday but one in May, and will generally speaking be concluded in six days. It will be composed of two parts¹.

- (1) Part I., which will occupy the first three days of the Examination, will consist of six papers, viz., one on each of the five subjects above-mentioned, and one containing general philosophical questions. Every Candidate

¹ For further particulars as to the conduct of the examination and the conditions of entering it, the reader is referred to the Regulations printed in Appendix (I).

will be examined in any five and not more than five of these six papers.

- (2) Part II., which will occupy the second three days of the Examination, will also consist of six papers, three historical and three theoretical, as follows :

- | | | |
|----------------|---|---|
| (a) Historical | { | History of Ancient Philosophy.
History of Modern Metaphysical
Philosophy.
History of Modern Ethical and
Political Philosophy. |
|----------------|---|---|

In each of these departments a special period or subject will be chosen ; and questions relating to this will occupy at least half the paper.

- | | | |
|-----------------|---|--|
| (b) Theoretical | { | Advanced Psychology and Psychophysics.
Advanced Logic and Methodology.
Advanced Political Economy. |
|-----------------|---|--|

Every Candidate will be examined in any two and not more than two of these six subjects ; and in each subject besides the one paper above mentioned themes for Essays will be set. These Essays will be done during the times allotted to two of the other papers—so far as this arrangement is practicable, as under ordinary circumstances will be the case.

The following Schedules of the different subjects, with lists of books recommended for study, was issued by the Board of Moral Sciences Studies on Feb. 14th, 1881.

SCHEDULE OF THE SUBJECTS OF EXAMINATION
DURING THE FIRST THREE DAYS OF THE
MORAL SCIENCES TRIPOS¹.

1. *Logic and Methodology.*

I. Province of Logic, formal and material.

II. Logical functions of Language: names, and their kinds: formation of general notions, definition, division, and classification: predicables and categories: scientific nomenclature and terminology.

III. The fundamental laws of thought, and their application to logical processes.

IV. Propositions and their import: opposition and conversion of propositions.

V. Analysis and laws of syllogism.

VI. The nature of the inductive process: ground of induction: connexion between induction and deduction: analogy.

VII. Uniformities of nature, and their combinations: their analysis, and the methods of discovering and proving them: observation and experiment: scientific explanation: the nature and uses of hypothesis: doctrine of chance.

VIII. Error, its nature and causes, and the safeguards against it: classification of fallacies.

¹ The order of the subjects has been changed to that which seemed the most convenient to adopt in the recommendations which follow.

IX. Relation of Logic to Psychology, Grammar, Rhetoric.

List of books recommended on this subject, in addition to some elementary handbook:

Aldrich, *Artis Logicæ Rudimenta, with Introduction and Notes by Mansel.*

Mansel, *Prolegomena Logica.*

Mill, *Logic.*

Whewell, *Novum Organon Renovatum.*

2. Political Economy.

I. Preliminary.

The fundamental assumptions of Economic Science, the methods employed in it, and the qualifications required in applying its conclusions to practice; its relation to other branches of Social Science.

II. Production of Wealth.

Causes which affect or determine

- (i) The efficiency of capital and of labour.
- (ii) The difficulty of obtaining natural agents and raw materials.
- (iii) The rate of increase of capital and population.

III. Exchange and distribution of Wealth.

Causes which affect or determine

- (i) The value of commodities produced at home.
- (ii) The rent of land.
- (iii) Profits and wages.
- (iv) The value of currency.
- (v) The value of imported commodities.

Monopolies. Gluts and crises. Banking, and the foreign Exchanges.

IV. Governmental Interference in its economic aspects. Communism and Socialism.

The principles of taxation: the incidence of various taxes: public loans and their results.

List of books recommended on this subject:

J. S. Mill, *Principles of Political Economy*.

Marshall, *Economics of Industry*.

Fawcett, *Free Trade and Protection*.

Bagehot, *Lombard Street*.

Goschen, *Foreign Exchanges*.

Walker, *The Wages Question, and Money, Trade and Industry*.

3. *Psychology*.

I. Standpoint, data, and methods of Psychology. Its fundamental conceptions and hypotheses. Relations of Psychology to Physics, Physiology, and Metaphysics.

II. General analysis and classification of states of mind. Attention, consciousness, self-consciousness. Elementary psychical facts: impressions, feelings, and movements; retentiveness, arrest, association; appetite and aversion; reflex action, instinct, expression of feeling.

III. Sensation and perception. Intensity, quality, and complexity of sensations. Physiology of the senses. Activity and passivity of mind. Localisation of sensations. Psychological theories of time and space. Intuition of things.

IV. Images. Imagination, dreaming, hallucination. Flow of ideas. Interaction of impressions and images. Memory, expectation, obliviscence.

V. Thought. Comparison, abstraction, generalization : formation of conceptions. Psychology of language. Influence of society upon the individual mind. Judgment. Psychological theories of the categories.

VI. Emotions : their analysis and classification. Higher sources of feeling : æsthetic, intellectual, social and moral. Theories of emotional expression.

VII. Action. Desires and volitions. Conflict of motives, deliberation, self-control. Freedom.

List of books recommended :

Bain, *Handbook of Mental Science*.

Hamilton, *Lectures on Metaphysics*.

Spencer, *Principles of Psychology* (omitting Parts v., vii.).

Taine, *De l'Intelligence*.

Carpenter, *Mental Physiology*.

Calderwood, *Relation of Mind and Brain*.

4. *Metaphysics*.

I. The nature, origin, and extent of knowledge : the criteria of truth and certainty ; the Categories or fundamental forms of the object of knowledge.

II. Explanation of the conceptions Being, Reality, Existence, Finite, Infinite.

III. Ontological Theories of the Ego, the Non-ego, and their relations.

IV. Speculative treatment of the fundamental conceptions of Physical and Biological Science.

List of books recommended on this subject :

Reid, *Essays on the Intellectual Powers* (Hamilton's Edition).

Kant, *Kritik der reinen Vernunft*.

Mill, *Examination of Hamilton*.

Spencer, *First Principles*, and *Principles of Psychology* (metaphysical portions).

5. *Moral and Political Philosophy.*

I. The different sources, occasions, or determining causes of human action, and their mutual relations :

(i) Pleasure, pain ; desire, aversion, and their varieties :

(ii) Will, freedom of will, practical reason :

(iii) Conscience, moral sentiments, moral perception or judgment, moral reasoning :

Theories of the origin of the moral faculty.

II. The Good or ultimate end of rational action : happiness, right and wrong, moral obligation, moral excellence : rules and sanctions.

III. Exposition and classification of particular duties and virtues.

IV. Relation of Ethics to Psychology, Law, Politics.

V. The general principles of Jurisprudence and the Art of Legislation : rights to property and services, and modes of acquiring them : contracts :

rights and obligations attached to different private conditions : theory of punishment.

VI. The different functions of government, and the modes of their distribution : mutual rights and obligations of governors and governed : general limits of governmental interference.

List of books recommended on this subject :

Hobbes, *Leviathan*, Part I.

Butler, *Sermons* 1—3, 5, 8, 11, and *Dissertation on Virtue*.

Kant, *Grundlegung zur Metaphysik der Sitten*.

Bentham, *Principles of Morals and Legislation*, and *Principles of the Civil Code*.

Mill, *Utilitarianism*, *On Liberty*, and *Representative Government*.

Sidgwick, *Methods of Ethics*.

SCHEDULE OF THE SUBJECTS OF EXAMINATION DURING THE REMAINING DAYS OF THE TRIPOS.

Special subjects in the different branches of Historical study included in Part II. of the Tripos, viz. the History of Ancient Philosophy, the History of Modern Metaphysical Philosophy, and the History of Modern Ethical and Political Philosophy, will be announced in the Easter Term next but one preceding that in which the examination is to be held ; and books will be recommended at the same time for the students in each of these branches.

The following are the schedules of subjects and the lists of books recommended for study in the three remaining departments included in this part of the Examination.

Advanced Logic and Methodology.

Students will be expected to show a fuller knowledge of the subjects included in the preceding schedule of Logic, and of existing controversies in connexion with them, and the Examination will also include the following subjects:—Symbolic Logic, Theory of Probabilities, Theory of Scientific Method and the Methods of different Sciences.

The following are among the books that will be found useful in addition to those already recommended:—

Bacon, *Novum Organon*.

Whewell, *Philosophy of Discovery*.

Bain, *Logic*.

Jevons, *Principles of Science*.

Venn, *Logic of Chance*.

Mill, *Examination of Hamilton* (logical portions).

Ueberweg, *System of Logic* (translated by Lindsay).

Boole, *Laws of Thought*.

Advanced Political Economy.

The student will be expected to show a fuller and more critical knowledge of the subjects included in the preceding schedule of Political Economy, particularly in regard to those mentioned under the first head in that schedule. The examination will also include the following subjects: the diagrammatic expression of problems in pure theory with the general principles of the mathematical treatment applicable to such problems: the statistical verification and suggestion of economic uniformities: and a general historical knowledge (a) of the gradual

development of the existing forms of property, contract, competition and credit ; (b) of the different modes of industrial organization ; and (c) of the course and aims of economic legislation at different periods, together with the principles determining the same.

The following are among the books which will be found useful in reading for this part of the Examination in addition to those already recommended :—

Adam Smith, *Wealth of Nations* (M'Culloch's edition).

Malthus, *Essay on Population*, and *Principles of Political Economy*.

Ricardo, *Principles of Political Economy and Taxation*.

Brentano, *On Guilds*.

Nasse, *Agricultural Communities of the Middle Ages*.

Cournot, *Principes de la Théorie des richesses*.

Jevons, *Theory of Political Economy*.

Walker, *On Money*.

Roscher, *Political Economy*.

The collected Essays of Mill, Cairnes and Cliffe Leslie ; and the historical portions of Macleod's works.

Advanced Psychology and Psychophysics.

A fuller knowledge will be expected of the subjects for the earlier paper, and of current controversies in connexion with them. Further, a special knowledge will be required (i) of the physiology of the senses and of the central nervous system, (ii) of experimental investigations into the intensity and duration of psychical states, and (iii) of such facts of mental pathology as are of psychological interest. Questions will also be set

relating to the philosophic treatment of the relation of Body and Mind as regards both the method and the general theory of psychology.

The following are among the books that will be found useful in addition to those already recommended :—

Morell, *Introduction to Mental Philosophy*.

Volkmann, *Lehrbuch der Psychologie*.

Lewes, *Problems of Life and Mind*, Vols. III.—V.

Foster, *Text-book of Physiology*, Bk. III.

Wundt, *Physiologische Psychologie*.

Fechner, *In Sachen der Psychophysik*.

Maudsley, *Physiology of Mind, and Pathology of Mind*.

Lotze, *Metaphysik*, Bk. III.: *Psychologie*.

REMARKS ON THE ABOVE SCHEDULES.

The first point to notice, in commenting on the above schedules, is that there are no sharp lines of separation to be drawn, marking off each department of them from all the others. On the contrary there is no one of the five subjects which does not overlap some one of the others to an important extent. There are many topics that belong equally to Psychology and Metaphysics, many others that belong equally to Logic or Methodology and to Metaphysics; Psychology and Moral Philosophy have much common ground, and so have Political Philosophy and Political Economy. How this comes to be the case, what the best definition of each subject is, and what the true view of their mutual relations, are questions of great interest which the student ought to keep steadily before his mind; but it would

be difficult to answer them in a manner thoroughly intelligible, except to those who have already acquired a certain knowledge of the subjects. So far, however, as practical guidance is concerned, the beginner will find the subjects sufficiently defined by the schedules and lists of books above given.

It has already been explained that of the five subjects in which the Examination will be held in 1883 and subsequent years—Psychology, Logic and Methodology, Metaphysics, Moral and Political Philosophy, and Political Economy—every candidate will be expected to study at least four up to a certain point; and owing to the intimate connexion of the different departments, it will be best, if time permits, that he should acquire some knowledge of the remaining fifth. The choice of the paper to be omitted in Examination will, of course, be partly determined by special tastes or previous reading; but, generally speaking, a student who is drawn to the study of Moral Sciences by his interest in the great problems of Philosophy, should omit Political Economy; while, on the other hand, one whose interests are chiefly social and practical will probably find it best to omit the paper on Metaphysics. Further, every candidate will be required to prepare for two out of the six papers to be set in Part II. of the Examination: viz.

(a) History of Ancient Philosophy,

(b) History of Modern Metaphysical Philosophy,

(c) History of Modern Moral and Political Philosophy,

(d) Advanced Psychology and Psychophysics,

(e) Advanced Logic and Methodology,

(f) Advanced Political Economy,

and also to write Essays on themes included within the range of his two papers.

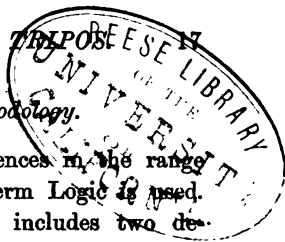
The selection among these six subjects must be left to the student¹: except that no student who omits the paper on Metaphysics in Part I. should select (a) or (b) in Part II.; and no student who omits the paper on Political Economy in Part I. is likely to choose (f) in Part II.

The following advice as to the order and manner of studying the different subjects is given on the supposition that the student has no previous acquaintance with Moral Sciences. Such a student will generally speaking find it most advantageous to read not less than two, and not more than three, subjects at the same time. The order of reading the subjects may without disadvantage be varied to a certain extent, according to the student's opportunities of obtaining good elementary teaching in the different departments. Such variation, however, should be confined within strict limits: thus in all cases Psychology and Logic should certainly be studied up to a certain point before the course

¹ See, however, some remarks on pp. 40, 41, addressed to students who have taken Honours in other Triposes.

of Metaphysical reading is commenced; again it is better to take Political Economy before Political Philosophy, and (for a different reason) Psychology before Moral Philosophy. On the whole, students who do not omit Political Economy will probably find it best to begin with this subject and Logic. The undisputed evidence which a large portion of Logic possesses peculiarly adapts it for beginners: and the principles of Political Economy, while they can be grasped with less effort of abstraction than those of Philosophy, also afford greater opportunity of testing the clearness of the student's apprehension by their application to particular cases. Those, on the other hand, who omit Political Economy are advised to commence with Psychology and Logic.

Accordingly, in the particular suggestions which follow as to the method of study to be adopted in the different departments respectively, we may conveniently take the five subjects in the following order: Logic and Methodology, Political Economy, Psychology, Metaphysics, Moral and Political Philosophy. In each case, care has been taken to distinguish the recommendations addressed to students who only aim at the more elementary or more general knowledge which will suffice for Part I., from those which relate to the more full and detailed knowledge—either of the subjects themselves or of the history of doctrine relating to them—which is required in Part II.

1. *Logic and Methodology.*

There are important differences in the range of meaning with which the term Logic is used. In its widest signification, it includes two departments of inquiry which may be to some extent studied independently of each other. The first of these,—to which alone the name Logic was formerly applied, and which still, according to some writers, should be regarded as constituting the whole of Logic,—is concerned with reasonings only in so far as their validity can be determined *a priori* by the aid of laws of thought alone.

This study is often called, for distinction's sake, 'Formal Logic;' on the ground that it is concerned with the *form* and not with the matter of thought; *i. e.* not with the characteristics of the particular objects about which the mind thinks and reasons, but with the manner in which, from its very nature, its normal thoughts and reasonings about them are constructed. It is with this branch that the student should commence, familiarising himself with it by the aid of some elementary hand-book, *e. g.* Jevons' *Elementary Lessons in Logic*, or Fowler's *Deductive Logic*. Frequent references should also be made to the valuable notes and appendices in Mansel's edition of Aldrich. The history of Formal Logic and many of the most important controversies raised in connexion with it will be found indicated here.

The relation of Formal Logic to Psychology is,

according to some logicians, of a very intimate nature, and it will be found discussed in detail in Mansel's *Prolegomena Logica*. This is a somewhat difficult work; and the student will accordingly find it best, generally speaking, to defer reading it till the conclusion of the elementary course on Logic. There are, moreover, certain portions of it—especially chapters 4 and 5—which should be regarded as belonging to Metaphysics; and read in connexion with the books selected for this latter department.

Before, therefore, he proceeds to the study of the *Prolegomena Logica*, the student should have carefully read Mill's *Logic*. This work has a much wider scope than that of Formal Logic, as above explained; and in fact deals at length with topics that do not so properly belong to Logic—even according to his own definition of Logic—as to Methodology, or the theory of the intellectual processes by which the truths of the different sciences have been reached in the past, and may be expected to be reached in the future. It should be observed also that even when Mill is apparently discussing the same topics as those discussed by the formal logicians, he will often be found to treat them in quite a different spirit, and from a different point of view. A clear apprehension of this difference can only be attained in the course of the study itself: but it is well that the student should be prepared for it at the outset.

Whewell's *Novum Organon Renovatum* should

be read in connexion with Mill's *Logic*. It deals more distinctly and explicitly with the methodological topics treated of in Mill's book : and the student's grasp of the subject will be materially aided by a careful comparison of the doctrines of the two writers.

The majority of the more advanced works here fall into two sections : those which are read mainly for their own historic interest or the historic information which they contain ; and those which require some knowledge of mathematics or physical science, as analysing the methods, or appealing to the notation of, those sciences. In the former class Bacon's *Novum Organon* claims attention from its importance in the development of English scientific speculation. The best brief introduction to it is still to be found in the essay by R. L. Ellis, in the first volume of the collected works of Bacon by him and Mr Spedding. Much valuable information and criticism is also given in the very complete edition of the *Novum Organon*, recently published by Prof. Fowler. Ueberweg's *System of Logic* is valuable to the English reader for its abundant historic references, and because it presents him with a general view of the science familiar on the Continent but not readily to be gained from the ordinary English hand-books.

Whewell's *Philosophy of Discovery*, and the greater portion of Professor Jevons' *Principles of Science*, are devoted to the description and analysis of the methods of the physical sciences. The latter

of these writers, if falling short of his predecessor in actual knowledge of the history of the science and especially in the mathematical power which their successful prosecution demands, has the great merit of coming a generation later. His volume contains an almost unique collection of interesting and valuable scientific illustrations. Bain's general system of philosophy is so nearly in accord with that of Mill, that, as might be expected, his *Logic* runs on the same lines, generally speaking, as that of Mill.

Mr Venn's *Logic of Chance* is intended to explain the logical principles which underlie the ordinary mathematical treatment of the Theory of Probability. The view of Logic on which it is founded is that commonly called the objective or material view. It aims at being within the comprehension of those who have only an elementary knowledge of mathematics. Boole's work is of a very different character. Instead of extending logical treatment to an allied subject, it is mostly occupied with what is commonly regarded as a mathematical treatment of Formal Logic itself. It goes over the familiar syllogistic field, extends this so as to embrace terms of any degree of complexity as well as propositions of any kind and in any number, and employs the notation of mathematics for the expression of these processes. Those whose mathematical studies have not already familiarized them with the notation employed must be prepared to find the work decidedly difficult. The

principle of continued dichotomy which forms the logical basis of Boole's system has been largely employed by Professor Jevons, and will be found clearly explained in his *Elementary Lessons in Logic*. The same method is explained much more fully, and with an abundance of examples, in his *Principles of Science*; it forms in fact the formal part of that volume. The appropriate parts of these works may be conveniently read before, or along with, Boole's *Laws of Thought*.

The student is recommended to read the logical parts of Mill's *Examination of Hamilton*, less for their destructive side, in the way of criticism of Hamilton, than for the many points on which they serve to supplement Mill's own system of Logic, and to explain the philosophic scheme which underlies that system.

2. *Political Economy.*

Mill's *Principles of Political Economy* is still the best systematic treatise on the subject in English, covering the whole ground as defined by the schedule. But it is now more than a generation since it was originally written; and the active discussion of economic questions that has been carried on since that time has clearly shown the need of important modification in several of Mill's positions. In fact it has to be borne in mind that Mill himself made substantial corrections in the Theory of Distribution continued in Book II. of his

treatise, which were never incorporated in the work¹. Hence students preparing for the Elementary Examination will find it best to begin by thoroughly mastering Marshall's *Economics of Industry*, paying particularly careful attention to the Theory of Value and Distribution contained in the second part of that book. They may then take up Walker on *Money, Trade and Industry*, and Bagehot's *Lombard Street*. To complete their first survey of the subject they should next read the Theory of Taxation and State Interference in Mill's Book v. and Prof. Fawcett's *Free Trade and Protection*. The remainder of Mill's treatise should then be read: and the differences between Mill's views and those which the student will have already formed should be carefully noted and thought over.

Goschen's *Foreign Exchanges* should be read after the chapter in Mill that treats of this subject: it will give the student a fuller grasp of facts, the apprehension of which is of fundamental importance both for the theory of trade and for the theory of money. Walker's book on *The Wages Question* may be advantageously read immediately after the *Economics of Industry*.

The student who selects Political Economy as a special subject may advantageously, after the elementary course is completed, take as a fresh starting-point Adam Smith's celebrated work. He will

¹ They are to be found in a review of Thornton's work *On Labour*, which is reprinted in the third volume of Mill's *Dissertations and Discussions*.

observe, especially in Books I. and II., many real and fundamental divergences from the theory he has just mastered, but the study of these divergences will always prove instructive : and in a number of other cases when there is apparent conflict between the views of Adam Smith and later writers, it will be found that the difference lies to a great extent in the method adopted and the end proposed in the inquiry. For the study of economic history, especially of the course and aims of economic legislation at different periods, Books III. and IV. and the part of Book V. that treats of taxation are specially important. Valuable assistance for understanding the philosophical basis of the treatise will be found in Mr. Cliffe Leslie's *Essay on The Political Economy of Adam Smith*.

For further historical study the works of Brentano (*On Guilds*), and Nasse, *Agricultural Communities of the Middle Ages*, and the historical portions of Macleod's *Theory of Banking* (or of his *Economic Philosophy*) may next be taken. The two former will supply information on the different modes of industrial organization, and on the gradual transition from the mediæval form of society to the modern system of complete private property in land and determination of wages by free contract. On the history of banking and credit and of the modern medium of exchange generally, Mr Macleod is the most learned English authority ; along with his *Theory of Banking* Walker on *Money* may be read with advantage. Much useful historical infor-

mation will also be found in Roscher's *Political Economy* (translated by Lalor).

Meanwhile, to obtain a fuller and more critical grasp of the principles and methods of English Political Economy the student should, after Adam Smith, read carefully Ricardo's treatise. He should consider it, on the one hand, in its relation to Adam Smith's work, of which it contains important criticisms; and, on the other hand, should note and weigh the criticisms on Ricardo put forward in Malthus' *Political Economy*; and the more or less explicit corrections or qualifications of Ricardo's positions, suggested or adopted by J. S. Mill. Further valuable discussion on the province of Political Economy, its relation to other sciences, its method, and other critical questions, will be found in the collected Essays of J. S. Mill, Cairnes and Cliffe Leslie. For the recent development of economic theory in England the most important work is undoubtedly Jevons' *Theory of Political Economy*. Much of it cannot be profitably studied without a general acquaintance with the mathematical conceptions on which the Differential Calculus is based; but any one who possesses this may easily follow its reasonings, without having any practical familiarity with the methods of the calculus. This practical familiarity will, however, be indispensable for the profitable study of Cournot's *Principes de la Théorie des richesses*, a book which no one should neglect who studies the application of mathematics to pure economic theory.

In the above recommendations account has been taken of the books in the list issued by the Board of Moral Sciences Studies. Besides these, the historical student's attention may be directed to Blanqui's *Histoire d'Économie Politique* (of which there is an English translation); and also to Sismondi's *Nouveaux Principes d'Économie Politique*, which is interesting as perhaps the first articulate expression of the socialistic criticism of received economic doctrines.

3. *Psychology.*

The Science of Psychology has made considerable advances in recent times; so that the work of earlier English writers on this subject—including even Locke—has now chiefly a historic interest. Still the student must not expect to find a perfectly clear *consensus* among its expositors as to its method and principles. Modern Psychology though rich in facts, is poor in definitions; and the greater part of its laws are merely empirical generalisations still awaiting further explanation. The beginner will find some difficulty—though the extent of this has perhaps been exaggerated—in performing satisfactorily the observations of mental phenomena which he is called upon to make; and the assistance which psychological writers offer him in this task, is rendered less serviceable than it would otherwise be, through their varying and uncertain use of such common terms as Consciousness, Sensation,

Perception, Idea, Thought, Feeling, Pleasure, Will, &c. It will therefore be advisable that he should in the first instance confine his attention to the writings of one of the chief English schools—that of the Scotch or ‘Faculty’ Psychologists, or that of the Associationists, the descendants of Hume and Hartley. On the whole, it will be best for him to begin with the latter; whose treatment of the subject, though less comprehensive and complete, is so far as it goes, the more exact and scientific. If he adopt this course, he should take first Prof. Bain’s *Mental Science*, reference being made to his larger works (*Senses and Intellect, Emotions and Will*) whenever he may desire further amplification and illustration. The article on Consciousness appended to the latter of these should in any case be read. (The advanced students may also read the notes added by Messrs. Bain and J. S. Mill to the elder Mill’s *Analysis of the Phenomena of the Human Mind*.)

After Prof. Bain’s book, Hamilton’s *Lectures on Metaphysics* should be taken up. Students who are also intending to prepare for the examination in Metaphysics may with advantage compare with this book portions of Reid’s *Essays on the Intellectual Powers* with Hamilton’s notes. These notes contain Hamilton’s latest views on many important psychological points; but the first mentioned treatise gives his most systematic exposition of Psychology.

The student may then pass to the two following works: Taine’s *De l’Intelligence*, 3^{me} ed. 1878 (Eng-

lish translation of 2nd ed. 1871) and Spencer's *Principles of Psychology*. Both these works contain a larger amount of hypothesis and speculation than those above mentioned; yet M. Taine treats in the main in a lucid and masterly style of the growth of experience in the individual. Mr Spencer essays the wider tack of exhibiting the evolution of mind from the beginning; and, notwithstanding a large admixture of hypothetical physics and questionable metaphysics, there is no book from which the judicious student of psychology will learn more: if pressed for time he may omit Parts v. and vii¹. as less directly psychological and read Part iii. very cursorily.

Psychophysics, which treats of the phenomena of mind in relation to the changes in the organism which accompany them, is a branch of Psychology to which every one who studies this subject at all, is recommended to give some attention. Here, however, we have to distinguish between the philosophical discussion of the general relation of mind and body, and a knowledge of the particular connexions between mental and corporeal phenomena. The former subject belongs rather to Metaphysics; an elementary knowledge of the latter may be gained from Carpenter's *Mental Physiology*. Prof. Calderwood has also endeavoured to meet the wants of psychological students in his *Relations of Mind and Brain*: this book, along with a

¹ Also Part viii. ("Congruities") as added in the last edition.

pretty full and accurate statement of facts, contains also a discussion of the 'theory of mental life they warrant.'

The advanced student of Psychology will find it a great advantage if he is able to read German. In this case Volkmann's *Lehrbuch der Psychologie* will be most useful to him as a repertory of facts and opinions, besides giving the ablest exposition of the Herbartian Psychology—the Psychology which has been the most fruitful of results, at any rate in Germany. Closely related to this school is the teaching of Lotze, which should on no account be passed over¹; also Drobisch's *Empirische Psychologie* and Waitz's *Grundlegung*, and *Lehrbuch der Psychologie*, to which the student who is not pressed for time should pay some attention. Morell's *Introduction to Mental Philosophy on the Inductive Method*, is avowedly largely indebted to Waitz, Drobisch and Volkmann; and may be recommended especially to the English student who is unacquainted with German; along with Ribot's *La Psychologie Allemande contemporaine*, which contains fair summaries of the leading doctrines of Herbart, Fechner, Lotze, Wundt and others.

For advanced reading in Psychophysics the most useful single work is Wundt's *Grundzüge der physiologischen Psychologie*. The student who has gone through this will find valuable instruction in Fechner's *Elemente der Psychophysik* and *In Sachen der Psychophysik*—especially in the latter book,

¹ A translation of Lotze's chief works is expected shortly.

which is a reply to criticisms on the former. If unable to read German, the student will find the most necessary physiological information in Foster's *Text-book of Physiology*, Bk. III. ; he may also read Maudsley, *Physiology of Mind*, and *Pathology of Mind*, and Lewes, *Problems of Life and Mind*, Vols. III—V.

4. *Metaphysics.*

The student who has already gone through a course of reading—accompanied, it is to be hoped, by oral instruction—in Psychology, will already have had his attention directed to some extent to the topics included in the schedule of Metaphysics. That this must be the case will appear, indeed, from a comparison of the two schedules of Psychology and Metaphysics respectively, independently of the books recommended. Thus it would be impossible to treat of the “data and fundamental conceptions” of Psychology, of “perception,” “intuition of things,” or “thought and abstraction,” without at the same time discussing to a certain extent the “nature and origin of knowledge” and the “relation of the ego and non-ego.” But in the works recommended for the two departments—especially the works of Reid and Hamilton on the one side, and of Mill and Bain on the other—the amalgamation of the two studies goes apparently further: and in fact the subject of Metaphysics in these books is not distinctly separated from Psychology as it is in the

Cambridge scheme. So far as this difference is more than a mere difference of nomenclature¹, it could only be satisfactorily explained in the course of a critical exposition of the systems of Hamilton and Mill. But the principle of the separation adopted in the Cambridge scheme may perhaps be made partially clear without entering on matters of controversy; and it will probably assist the student to keep it in view from the outset. He must understand then, that Psychology deals with cognitive acts or states primarily as one class (among others) of mental phenomena; as forming part of the stream of consciousness of certain particular minds, whose processes the student is able to observe directly or indirectly. Whereas in the investigation of knowledge and its conditions that constitutes one department of Metaphysics, the same acts or states are primarily considered as representative of or related to the objects known. Or—to present substantially the same difference in another form—in investigating perceptions or thoughts from the point of view of Psychology the student is no more occupied with those that are *real* or *valid*, than he is with those that are illusory or invalid—in fact, the latter may often be more interesting as throwing more light on the general laws of human minds: whereas the metaphysician is primarily concerned with real knowledge or truth

¹ It should be observed that Hamilton defines Metaphysics so as to include what in the Cambridge scheme is distinguished as Psychology.

as such, and treats of merely apparent knowledge or error only in order to expose and avoid it.

Keeping then, this distinction in view, the student of Metaphysics may with advantage read over again considerable portions of the books recommended for psychological study ; including the greater part of Hamilton's *Lectures on Metaphysics*. Along with this book he may conveniently take Reid ; observing the differences between the two with the aid of Hamilton's notes on the latter. These notes also contain some important developments of Hamilton's own doctrine, not introduced into the *Lectures*. He should then carefully examine the controversies raised by Mill's *Examination of Hamilton* ; which brings into impressive prominence the contrast between the doctrines of the Scotch or "Common Sense" school, both as represented by Reid, and as modified by Hamilton, and those of the "Associationist" school to which Mill and Bain belong.

The student should then proceed to the most difficult part of the work provided for him in this department ; that, namely, of mastering Kant's metaphysical system. This work is likely to tax his powers of comprehension to the utmost ; and, at least in the second and most difficult part of Kant's *Kritik*, it will probably be some time before he feels himself sufficiently at home to follow the author's reasoning critically. Fortunately the labour that has been spent on the study of Kant during recent years in England has produced several works calculated to assist him in this task ; among which

Mr Monk's *Introduction to the Critical Philosophy*, Mr Adamson's lectures on *The Philosophy of Kant*, and Mr Caird's *Philosophy of Kant* may be especially mentioned. Of these the last is the most comprehensive and important; but it is less adapted for beginners than either of the two smaller books.

Mr Spencer's metaphysical system should generally speaking be studied last. The portions of his works that are most important to the student of metaphysics are *First Principles*, Part I., and Part II. Chapters I—VII., and *Principles of Psychology*, Parts VII. and VIII. (in the third edition). The student, however, should also review the results attained in the other parts of the last-mentioned treatise, and examine carefully their metaphysical bearing.

It will have been observed in reading the schedule of the Examination that the candidate who takes up Metaphysics in Part II. is required to study it historically. In fact, it will be open to him, in the preparation for this part of the Examination, to concentrate his attention entirely on the History of Philosophy, by taking up as his two subjects the History of Ancient Philosophy, and the History of Modern Metaphysical Philosophy. In each of the two divisions a particular portion¹ of the whole subject will be selected from time to time,

¹ The special subjects selected for the Examination in 1883, in the three departments of historical study, together with the lists of books recommended to the student in each department, will be found in Appendix II.

which he will be required to know thoroughly : and he should endeavour to avail himself of this special knowledge so as to make his general survey of the course of metaphysical speculation, in ancient or modern times, less superficial than it would otherwise be ; by keeping prominently in view the connexion of the doctrines specially studied with antecedent and subsequent thought. It ought to be observed that if a student of Metaphysics has not sufficient familiarity with Latin and Greek—especially Greek—to read the works of the ancient philosophers in the original language without much difficulty, with the help of an English translation, he will be at a considerable disadvantage in studying ancient philosophy. However careful a translator may be to convey the meaning of the technical or semi-technical terms used in expounding a philosophical system, he cannot avoid representing them by words which, in the ordinary usage of the translator's language, have associations and suggestions different from those of the words for which they are substituted ; and these differences are liable to have a misleading and confusing effect on the reader's mind. Hence a student who would have to depend on translations for his knowledge of Greek philosophy will generally do well to confine his historical studies to the modern period.

5. *Moral and Political Philosophy.*

In passing to the subject of Moral and Political Philosophy, we may take the opportunity of ob-

serving that in the History of Ancient Philosophy this subject is not separated from Metaphysics by the Scheme of Examination, as it is in the History of Modern Philosophy. Hence it will be desirable that the student who takes up the History of Ancient Philosophy in Part II. should not have omitted either Metaphysics or Moral and Political Philosophy in Part I. The connexion between Metaphysics and Ethics has been very intimate in many modern systems of thought also, of which the philosophy of Kant affords a conspicuous example. Nevertheless the reasonings contained in the short treatise of Kant's selected for the course on moral philosophy are, for the most part, perfectly intelligible even to students who have not more than a very general knowledge of Kant's metaphysical view. And the student of Ethics who does not also take up Metaphysics will hardly gain by going beyond this single treatise in his examination of Kant's practical philosophy; but any one who has read the *Kritik der reinen Vernunft* will do well to read at least the portions of the *Kritik der praktischen Vernunft* included in Abbott's translation (the best yet published).

As regards the English books recommended by the Board under this head, more than one order of study might be suggested which would have certain advantages. Something would be gained by taking the authors in chronological sequence; beginning, that is, with Hobbes' *Leviathan*, and then proceeding to Butler and Hume, and then to Bentham

and Mill. And in any case, whatever may be the order in which the student may first read the selected works of these writers, he ought certainly, before the conclusion of his course, to review and consider them in their historical relations. I think, however, that in most cases the student will do well to begin by mastering the system in which the connexion between morals and politics is kept most prominently before his mind, in its most obvious and least controvertible aspect: that is, the 'utilitarian' system of Bentham, as set forth in the *Principles of Morals and Legislation*, and the *Principles of the Civil Code*. From the point of view of this system Law and Morality are regarded as two codes of rules, which—though sustained respectively by different kinds of sanctions—are to a great extent coincident, and ought both to be framed with the same general aim of promoting the greatest possible happiness of the society for which they are laid down. In studying the principles of the system of rules called civil law, and the theory of the sanctions by which the observance of such rules are or ought to be enforced—as expounded in Bentham's two treatises—the student will be also surveying what, in Bentham's view, is the main part of the function of government in a properly constituted society. He will find a useful supplement to Bentham's treatment of this function in certain chapters of Mill's *Political Economy*; especially Book V. chap. I., and chap. XI. He may then go on to examine, with the aid of Mill's

Representative Government, the principles on which the government that is to exercise these functions ought to be constituted, and its normal relations to the rest of the community determined.

A transition may then be made to the study of ethical systems, by the examination of the utilitarian view of morality, in the different phases represented respectively by Hume, Bentham and Mill. The topics commonly included in ethical treatises may be grouped as belonging to two fundamental inquiries; which, although they are intimately connected, it may assist the student to distinguish from the outset. The first inquiry relates to the ultimate basis of duty, the essence of the obligation to do right, the general nature and authority of the primary intuitions or moral sentiments that prompt to right conduct; in connexion with which questions the origin of such intuitions or sentiments and the power or 'freedom' of the human will to fulfil a recognized moral obligation come to be considered. The second inquiry relates to the classification and systematization of particular intuitions of Virtue and Duty, so far as these are held to be immediately known; while, so far as right judgment on questions of conduct is the result of reasoning, it examines the premises from which and the methods by which such reasonings are or ought to be conducted. Most of the treatises recommended by the Board discuss chiefly, under one form or another, questions that come under the first head; while it is with the second kind of

inquiries that Mr Sidgwick's *Methods of Ethics* is primarily concerned. The plan of this latter book however, is such as to render it available as a guide to the whole course of ethical study. The treatises of Hobbes, Butler and Kant should in any case be read in their historical order; and while reading Butler the student should obtain from some history of ethical philosophy a general knowledge of the system of Shaftesbury, with which Butler's is closely connected.

GENERAL REMARKS ON METHOD AND TIME OF STUDY.

1. *Method of reading.*

Perhaps the best plan upon commencing a new work is to read it rapidly through first, in order to form a general notion of its bearing and to catch its principal points. The first reading may be too careful. The student may find himself face to face with difficulties, which, although really only of an incidental character, may cause him to misconceive the proportions of the whole, if he have formed a determination—in itself praiseworthy—to master every part upon first acquaintance. Upon the second reading, an analysis should be made of the more important works, but care should be taken that it do not become long and wearisome: it should be distinctly of the nature of a summary, and not a mere series of extracts. Such analyses are almost indispensable, to enable the student to

perform, in the concluding period of his course, an effective and systematic revision of the whole results of his study. Further, at the second time of reading, the student should take careful note of any difficulties that he may find in understanding the doctrines or criticisms propounded, or any doubts that may occur to him as to their correctness. He need not be afraid of losing time by writing down in his note-book as precise a statement as possible of his doubt or difficulty ; since no exercise of his mind is likely to be more conducive to his attaining a real grasp of his subject. He will sometimes find that the mere effort to state a difficulty clearly has the effect of dispelling it ; or, if not at the time, at any rate when he recurs to the point on a subsequent day he will often find the problem quite easy of solution : while in the cases where his perplexity or objection persists, a clear statement of it will generally bring his mind into the most favourable condition for receiving explanations from his teacher.

In subjects so full of unsettled controversy as the Moral Sciences generally are, a student must be prepared to find himself not unfrequently in legitimate disagreement with the authors studied ; (though he should not hastily conclude that this is the case, especially during the earlier stages of his course). In all except quite recent books, he is likely to find some statements of fact or doctrine which all competent thinkers at the present day would regard as needing correction ; while in other cases he will find, on comparing different works,

important discrepancies and mutual contradictions on points still debated between existing schools of thought. He should carefully note the results of such comparisons; but he should not content himself with merely committing them to memory; rather, he should always set himself to consider from what source each controversy arises, what its relation is to the rest of the doctrine taught in the works compared, and by what method the point at issue is to be settled.

It will generally be found convenient to put in tabular form any divisions or classifications which are met with in the selected books, and to commit them to memory so that they may be readily producible upon paper. Such lists are not indeed necessarily of great importance in themselves, but they furnish a convenient framework for criticisms and comparisons of the methods and results of various writers.

The constant practice of writing answers to papers of questions and longer compositions on special points arising out of the subjects studied, cannot be too strongly urged. Many minds are hardly able to bring their grasp of subtle or complicated reasonings to the due degree of exactness and completeness, until their deficiencies in these respects have been brought home to them by exercises in written exposition. And such exercises are naturally the most effective preparation for an examination, which consists of twenty-seven hours of writing.

2. *Time of study.*

The preparation for the Moral Sciences Tripos may with advantage be extended over three years: a student, therefore, who is not reading for Honours in any other Tripos should if possible commence the work in his first term. Still, those who have taken honours in the Classical Tripos or the Natural Sciences Tripos at the end of their *second* year, will be able afterwards to prepare fully for the Moral Sciences Tripos at the end of their *fourth* year, without being inconveniently pressed for time—supposing them to read steadily in their second, as well as in their third Long Vacation.

If, however, the period entirely devoted to this preparation is only one year—as must be the case with students who take some other Tripos at the end of their *third* year—it is very desirable that some part of the subjects should have been read at an earlier stage of the course. Elementary Logic is well adapted to be read in the first year, and may be recommended to all students alike. What further subjects should be taken by them before the fourth year, will naturally depend to some extent on the special tastes and previous training of individuals: so far as their choice is not determined in this way, the following suggestions may be found useful.

(a) Students of Classics, who take Ancient Philosophy as a special subject in Part II. of the Classical Tripos in their third year, will probably

find it advantageous—even with a view to their classical examination,—to go through an elementary course of instruction in the departments of philosophy to which the ancient works selected for special study relate. In this way they may at the same time prepare themselves for one or two of the elementary papers in the Moral Sciences Tripos; and if, having done this, they take up the History of Ancient Philosophy as one of their two special subjects in this latter Tripos, they may without difficulty go through the rest of the Moral Sciences course in their fourth year (including their third Long Vacation).

(b) Similarly, candidates for the Historical Tripos will have to study the subjects of Political Philosophy and Political Economy, as a part of the Historical course. Hence, in order to prepare adequately for the Moral Sciences Tripos in their fourth year, it will be generally sufficient if they carry their reading in these subjects, during their first three years, somewhat further than they would ordinarily do, with a view to the Historical Tripos only, besides going through an elementary course of Logic—as before suggested: supposing, at least, that they take up, as their two special subjects in the Moral Sciences Tripos, the History of Modern Ethical and Political Philosophy, and Advanced Political Economy.

(c) Students of Natural Sciences will derive special advantages from their previous training in studying (1) Logic and Methodology, and (2) Psy-

chology and Psychophysics. If, accordingly, they select these as their special subjects in the Moral Sciences Tripos, they may generally be recommended to study Elementary Psychology—as well as Logic and Methodology—during the earlier part of their course.

(d) Students of Mathematics have a similar advantage in dealing with Advanced Economic Theory, and Symbolic Logic.

The Board of Moral Sciences Studies publishes annually, towards the end of the Easter Term, a list of lectures for the coming academical year in different departments of the Moral Sciences. These lectures are, generally speaking, so arranged as to provide all the oral instruction required by students at different stages of their course.

APPENDIX I.

(A) REGULATIONS FOR THE MORAL SCIENCES TRIPOS, IN COMMON WITH CERTAIN OTHER TRIPOSES.

(To come into operation in Easter Term, 1882.)

A Student may be a Candidate for Honours in the Moral Sciences Tripos, if at the time of such Examination he be in his eighth term at least, having previously kept seven terms: provided that nine complete terms shall not have passed after the first of the said seven terms, unless the Candidate shall have previously obtained Honours in one of the Honours Examinations of the University, in which case he may be a Candidate provided that twelve complete terms shall not have passed after the first of the said seven terms.

No Student of a different standing shall be allowed to be a Candidate for Honours in this Examination unless he shall have obtained permission from the Council of the Senate.

No Student who has presented himself for the above Examination may present himself on another occasion for the same Examination.

A Student who shall pass the Examination for the Moral Sciences Tripos, shall be entitled to admission to the degree of Bachelor of Arts provided that he shall have kept the requisite number of terms at the time when he applies for his degree.

The Examination for the Moral Sciences Tripos shall commence upon the Monday after the last Sunday but one in May.

If Ascension Day fall upon any of the days fixed for one of the Honours Examinations, there shall be no Examination on Ascension Day, but all the Examinations affected by these regulations which begin not later than Ascension Day shall begin one day earlier (exclusive of Sunday) than is here provided.

The Class List for the Moral Sciences Tripos shall be published not later than 9 A.M. on the Friday after the second Sunday in June.

(B) REGULATIONS APPLYING ONLY TO THE
MORAL SCIENCES TRIPOS EXAMINATION.

(To come into operation in Easter Term, 1883.)

The names of the Students who pass the Examination with credit shall be placed in three classes. The names in each class shall be arranged in alphabetical order, marks of distinction being affixed to the names of those who have shewn eminent proficiency in particular subjects.

The Moral Sciences Tripos Examination shall continue during six days, or as much longer as may under special circumstances be found necessary; the hours of attendance being from 9 to 12 in the morning, and from 1 to 4 in the afternoon.

The subjects of the Examination shall be Psychology, Logic and Methodology, Metaphysics, Moral and Political Philosophy, Political Economy.

The Examination shall consist of two parts; in one of these the questions set shall be of a more elementary or more general character; in the other, the questions set shall require more advanced or more detailed knowledge either of the subjects themselves or of the history of opinions relating to them.

It shall be open to the Board to limit the number of subjects taken up by each Candidate, by the introduction of alternative papers in either part of the Examination;

provided that every Candidate shall be examined in not less than four subjects in the first part.

It shall be the duty of the Board of Moral Science Studies to mark out lines of study in the several subjects before mentioned : and to publish a list of books in relation to which questions shall be set ; modifying the same from time to time as occasion may require.

The Board shall have power from time to time to arrange and publish a schedule determining the order in which the Subjects of Examination shall be distributed.

To conduct the Examination two Examiners shall be nominated in every year by the Board of Moral Science Studies ; such Examiners, if elected by the Senate, and also re-elected by the Senate in the following year, to hold their office for two years ; the elections to be by Grace in the preceding Michaelmas term ; and each of the four Examiners in every year to receive Twenty Pounds from the University Chest.

Each Paper shall be set by two of the Examiners and approved by their colleagues ; and the answers to the papers shall be examined by two at least of the Examiners.

APPENDIX II.

THE BOARD OF MORAL SCIENCES have given notice of the following special subjects for the Tripos Examination in 1883.

I. In the History of Ancient Philosophy :

The Philosophy of Aristotle; with special reference to the *Organon* and the *De Animâ*.

II. In the History of Modern Metaphysical Philosophy :

English Metaphysics from Locke to Hume (inclusive); with special reference to the following books :

Locke, *Essay on the Human Understanding*.

Berkeley, *Principles of Human Knowledge*.

„ *Dialogues between Hylas and Philonous*.

Hume, *Treatise on Human Nature*, Vol. I.

„ *Inquiry concerning Human Understanding*.

III. In the History of Modern Ethical and Political Philosophy :

Political Philosophy in England and France from 1688 to 1793; with special reference to the following books :

Locke, *Essay on Civil Government*.

Hume, *Essays, Moral, Political and Literary*.

Part I. *Essays II—IX* (inclusive), and *Essay XII*.

Part II. *Essay VII*, and *Essays XII—XVI* (inclusive).

Burke, *Thoughts on the Present Discontents*.

„ *Reflections on the Revolution in France*.

Godwin, *Political Justice*.

Montesquieu, *Esprit des Lois*, omitting Books XX, XXI, XXII, XXVII, XXVIII, XXX, XXXI.

Rousseau, *Discours sur l'Origine des Inégalités*.

„ *Du Contrat Social*.

The following books are recommended by the Board with a view (a) to the general historical study of philosophy, and (b) to the study of the special subject selected in each department.

I. For the History of Ancient Philosophy :

- (a) Zeller, *Philosophie der Griechen*¹.
Schwegler, *Geschichte der griechischen Philosophie*.
Ueberweg, *Grundriss der Geschichte der Philosophie* (translated by Morris and Porter).
- (b) Wallace, *Outlines of the Philosophy of Aristotle*.
Grote, *Aristotle*.
Waitz, *Aristoteles, Organon*.
Trendelenburg, *Aristoteles de Animâ*.

* * In the Examination on Ancient Philosophy no passages will be set for translation ; but a knowledge of the Greek technical terms will be required.

II. For the History of Modern Metaphysical Philosophy :

- (a) Ueberweg, *Grundriss der Geschichte der Philosophie*.
Erdmann, *Geschichte der neuern Philosophie*.
„ *Grundriss der Geschichte der Philosophie*,
- (b) Green, *Introduction to Hume*.
Fraser's Edition of *Berkeley's Works*.
Webb, *Intellectualism of Locke*.

III. For the History of Modern Ethical and Political Philosophy :

- (a) Ueberweg, *Geschichte der Philosophie* (so far as relates to Ethics).
Whewell, *Lectures on Moral Philosophy*.
Bain, *Ethical Systems* (in Handbook of Moral Science).
- (a) and (b) Leslie Stephen, *English Thought in the 18th Century*.
Janet, *Histoire de la Science Politique*.

¹ Several parts of this work have been translated into English by different writers.



THE
STUDENT'S GUIDE

TO THE
University of Cambridge.

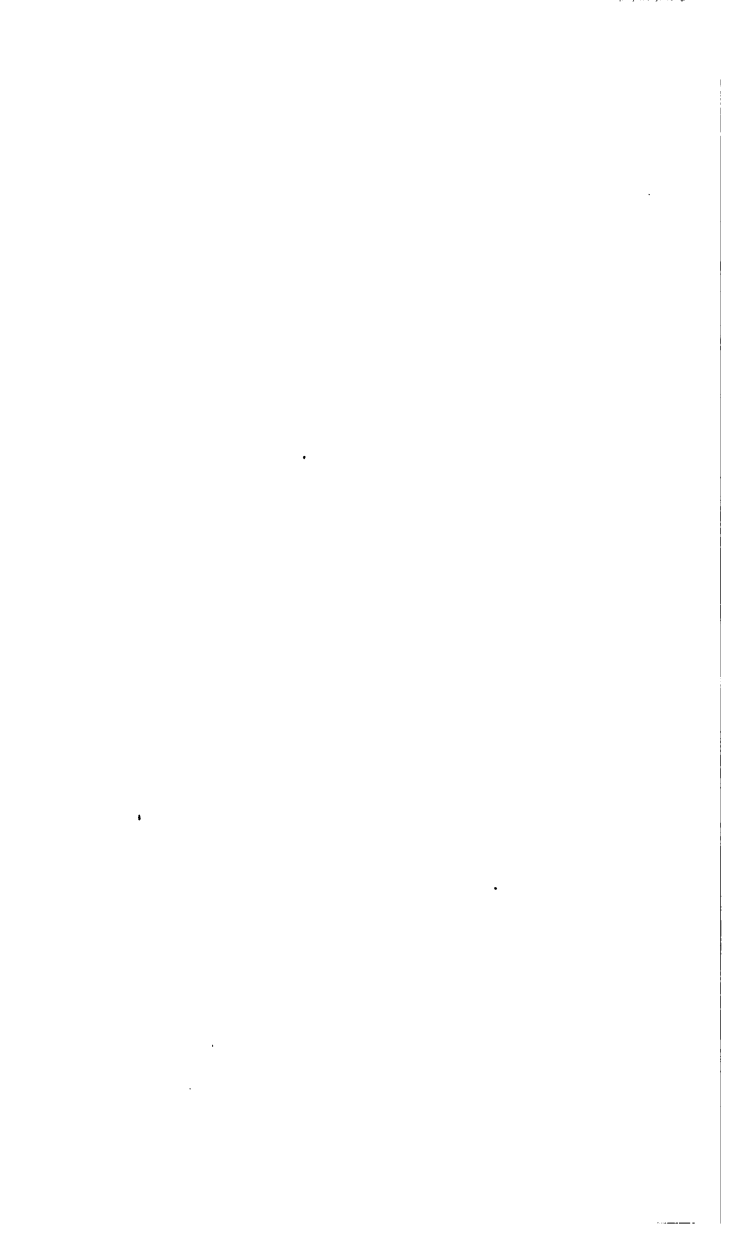
PART IX.

*THE HISTORICAL TRIPOS.—THE ORIENTAL TRIPOSES.—THE
ORDINARY (OR POLL) DEGREE.—UNIVERSITY OF
CAMBRIDGE LOCAL EXAMINATIONS.*



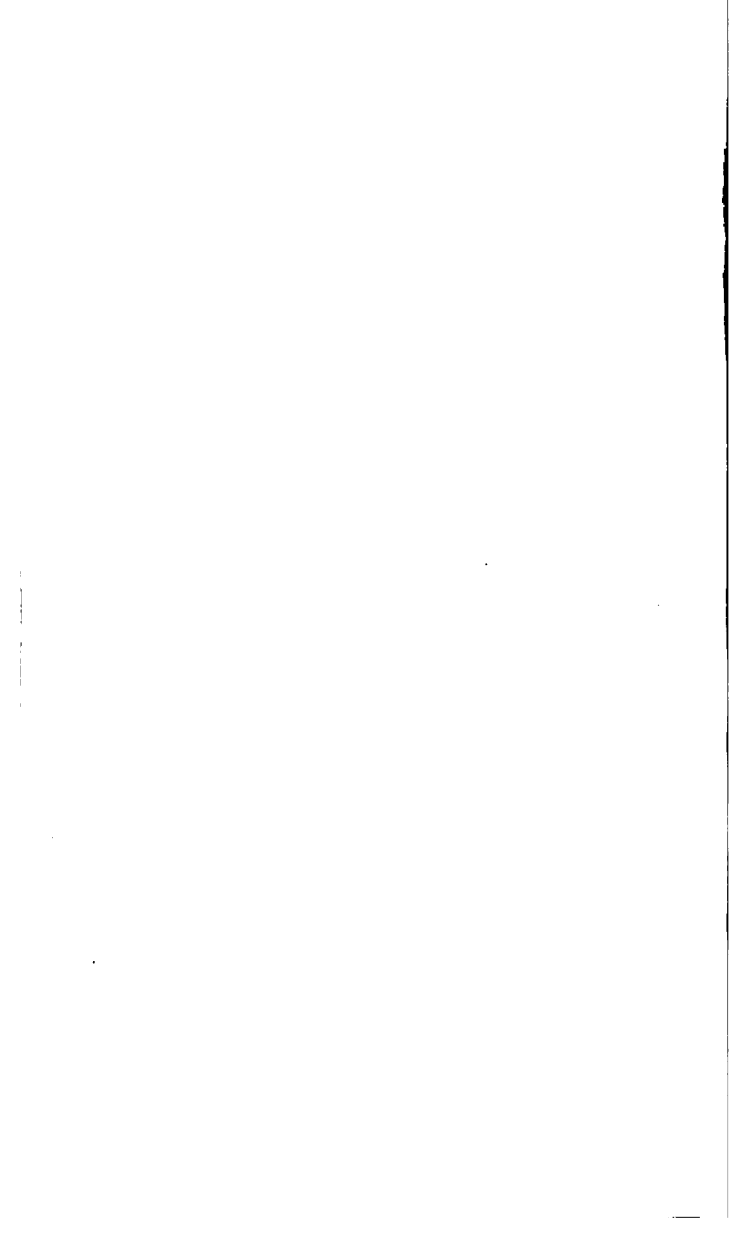
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THE HISTORICAL TRIPOS.

MODERN HISTORY was from 1860 to 1869 one of the subjects of Examination in the Moral Sciences Tripos. In 1870 it was removed from that Tripos and inserted among the subjects of the Law Tripos, which thus became the Law and History Tripos. The combination of Law and History in one Tripos was not found to be in all respects satisfactory, and was not maintained beyond December 1874. In December 1875 two separate Examinations were held, one for the Law Tripos, the other for the Historical Tripos.

The present article will first state what are the subjects of the Historical Tripos Examinations ; secondly, shew in what order the Student will have to arrange his reading of them ; and, lastly, attempt to give some guidance in the choice of books.

The subjects of the Examination are the following (see Reg. 3, Appendix):

(1) English History.

(2) } Special subjects, to be selected, generally speaking, from the periods
(3) } termed Ancient, Mediæval, and
(4) } Modern respectively.

(Either (3) or (4) to be always taken from English History. In subjects (2), (3), and (4) some knowledge of the chief original sources will be expected.)

(5) Principles of Political Philosophy and of General Jurisprudence.

(6) Constitutional Law and Constitutional History.

(7) Political Economy and Economic History.

(8) Public International Law in connection with selected Treaties.

(9) Subjects for Essays.

The words 'English History' are explained by the Board of Historical Studies (*Reporter*, June 10, 1873, p. 137) as including the History of Scotland, Ireland, and the British Colonies and Dependencies. The numbers before the subjects are not to be understood as indicating that the papers will be set in a fixed order.

It will be seen that the subjects (1), (5), (6), (7) and Public International Law in (8) do not vary from year to year: (2), (3), (4) and the Treaties in (8) are to be selected for each year by the Board of

Historical Studies (see Reg. 4, Appendix) and announced three years before the Examination takes place.

The subjects selected and announced for the years 1882, 1883 and 1884 are the following :

SUBJECTS FOR 1882.

- (1) History of Greece, B.C. 776—479.
- (2) History of France, A.D. 1302—1494. .
- (3) History of England, A.D. 1649—1714.
- (4) History of Treaties, A.D. 1648—1721.

SUBJECTS FOR 1883.

- (1) History of Rome, B.C. 509—290, including the political institutions of the regal period.
- (2) History of Western Europe, A.D. 476—800, including its relations with the Eastern Empire.
- (3) The Reformation in England, A.D. 1509—1560.
- (4) History of Treaties, 1648—1697.

SUBJECTS FOR 1884.

- (1) History of Greece, B.C. 510—403.
- (2) History of Italy, A.D. 1250—1494.
- (3) History of England, A.D. 1603—1660.
- (4) History of Treaties, A.D. 1697—1763.

The Syndicate which in March 1873 recommended the establishment of the Tripos and proposed the regulations for it, explained in their report (see *Univ. Rep.* for March 4, 1873, p. 126) the reasons which influenced them in their choice of subjects. Their statement runs thus :

‘The Syndicate consider that History, as the subject of an independent Tripos, requires to be placed on a wider basis than its subordinate position in other Triposes has hitherto allowed; and believe that in this manner its efficacy in education may best be secured. They propose therefore that Ancient and Mediæval History should have their due place in the Tripos, as well as Modern History, so that History may be placed before the Student as a whole.

‘They propose likewise that the study of History should be accompanied with the chief theoretical studies which find their illustration in History. This combination would be in accordance with the arrangement adopted in the reconstitution of the Moral Sciences Tripos in 1860, which was abandoned in a great measure in consequence of the practical difficulties found in working two simultaneous sets of papers. Such difficulties will of course not recur if an independent Tripos be established.’

* * * * *

‘The Syndicate further propose that in future the selected portions of History be described as subjects rather than as periods. In proposing this they do not intend to question the utility of studying whole periods of History together, for a historical period is also an historical subject, but only to allow the Board [of Historical Studies], when it sees fit, to choose part of a period, for example the history of a single country during a period, or

‘a series of events extending over many periods
‘which it may be important to study together.’

The order in which the Student will have to arrange his reading is determined by the order in which lectures are provided under the control of the Board of Historical Studies. The order of lectures varies but little from time to time, and those provided for Students preparing for the Tripos of 1882 may fairly be taken as a specimen of the lectures provided for any year. They were divided among the students’ three years of residence as follows :

In the first year.

General English History.

Economic History.

Special subject in Ancient History.

In the second year.

Half of the Constitutional History of England.

Political Economy.

Special subject in Mediæval History.

In the third year.

The remaining half of the Constitutional History of England.

International Law.

Political Philosophy and General Jurisprudence.

Special subject in the Modern History.

Special subject in the History of Treaties.

The course for other recent years has varied but little from this arrangement except that Political Economy often changes places with International Law and Political Philosophy and Jurisprudence.

It is probable that some changes in the distribution of lectures among the three years of residence may be necessitated by the shortening of the time of residence from ten terms to nine : some of the work of the third year may have to be transferred to the second year.

The Student should take particular care to attend the lectures on his special subjects : for if he misses one of these courses he will generally be unable to get any help in preparing the subject : the lecturer of course will not repeat his lectures, and no one else is likely to have studied the subject so as to be prepared to teach it.

Besides these lectures intended directly as teaching for the Tripos, the Student will of course attend the lectures of the Regius Professor of History throughout his three years.

The Board of Historical Studies have recommended books in all the invariable subjects of the Tripos except General English History.

In this subject it would be impossible to name a list of books which will be suitable for every one : for a Student who has not mastered the outlines before coming into residence will scarcely be able

to read more than J. F. Bright's *History of England* and J. R. Green's *Short History of the English People*, while one who has learnt the main facts at school can take a much wider course at the University. It is not possible to get anything like a satisfactory knowledge of English History from one or two books : but if many books are to be studied, some of the work must be done before residence at the University is begun. It is rare to find a student who comes up knowing the broad facts of English History as contained in the two books last mentioned : but any one who does has a very great advantage over his contemporaries. He can at once begin working at English History in a more complete way, and can include Constitutional History together with General History. To such a Student the following list of books in General and Constitutional History of England may be of some use.

1. For the Anglo-Saxon Period.

Lappenberg's *Anglo-Saxon Kings*.

Freeman's *Norman Conquest*, Chapter III.

Freeman's *Old-English History*.

2. From the Norman Conquest to the Revolution.

For the General History:

Lingard's *History of England* (together with some other work, e.g. Mackintosh, for the Reformation).

For the corresponding Constitutional History :

Stubbs' *Constitutional History*, Chapters IX—XIII.

Stubbs' *Documents illustrative of English History*.

Hallam's *Constitutional History* to Chapter xv.

3. Since the Revolution.

For the General History :

Macauley.

Stanhope's Reign of Queen Anne.

Stanhope's (Mahon's) History of England : the reigns of George I. and George II.

Massey's George III.

Miss Martineau. The Introduction to the History of the Peace.

Miss Martineau. The History of England during the Peace.

For the corresponding Constitutional History:

Hallam's Constitutional History, Chapters xv, xvi.

Erskine May's Constitutional History.

In the history of Scotland, Ireland, and the British Colonies and Dependencies those parts which are most closely connected with the history of England will naturally engage the largest share of the Student's attention. The necessary information upon these will generally be found in the works consulted on English History. It may be well however to mention the best authorities which deal specially with parts of the modern history of the associated countries: viz. for Scotland, Burton's *History of Scotland from 1689 to 1748*; for our Colonies past and present, Bancroft's *History of the United States*, and Heeren's *Manual of the Political History of Europe and her Colonies*.

For the study of the other invariable subjects, the following books have been recommended by the Board of Historical Studies.

1. In Political Philosophy and General Jurisprudence.

Aristotle, *Politics*.

Guizot, *Histoire de la Civilisation en Europe*.

Tocqueville, *L'Ancien Régime*.

Mill, *On Representative Government*.

Freeman, *History of Federal Government*, Introduction.

Justinian, *Institutes*.

Gibbon, *Decline and Fall*, Chapter XLIV.

Austin, *Province of Jurisprudence Determined*, Lectures 5 and 6.

Savigny, *System des heutigen Römischen Rechts*, Vol. I., being Book I. and Book II. Chapter 1 (translated into French by Guenoux under the title *Traité du Droit Romain par M. de Savigny*: copious extracts, in English, are given in Reddie's *Inquiries in the Science of Law*, Second Edition).

Maine, *Ancient Law*.

J. F. Stephen, *General View of the Criminal Law of England*.

2. In Constitutional Law and Constitutional History.

Blackstone, *Commentaries*. Book I. Chapters 2—13.

Book II. Chapters 4—6.

Book III. Chapters 3—6.

Book IV. Chapters 19 & 33.

Stubbs, *Select Charters*.

Hallam, *Constitutional History*.

Erskine May, *Constitutional History*.

Guizot, *Histoire de la Civilisation en France*.

Bryce, *Holy Roman Empire*.

3. In Political Economy and Economic History.

Smith, <i>Wealth of Nations</i> ,	}	Book I. Chapters 1—5
McCulloch's edition.		Book III. [and 10.
		Book IV.

Mill, *Political Economy*.

Brentano. *On the History and Development of Gilds and the origin of Trade-Unions*.

Leone Levi, *History of British Commerce*.

Baxter, National Income.

The Taxation of the United Kingdom.

National Debts.

4. In International Law.

Wheaton, International Law.

History of International Law.

Possibly some Students may be able to read thoroughly the whole of the books enumerated in the above list : probably the majority will be able to read the greater part of them with advantage. Every one must judge for himself how many of them he can master. No general advice can be given on this point, except that every one should be content to read so many only as he can read thoroughly, and to leave the rest untouched. Which should be read and which neglected, must be determined in each case by the abilities and attainments of the Student.

In the subjects which are specially appointed for each year, the Board does not recommend books: the Student will always be able to get advice from the Lecturers on the subjects.

APPENDIX.

REGULATIONS FOR HISTORICAL TRIPOS.

1. That all Students who shall pass the Examination for the Historical Tripos shall be entitled to admission to the degree of Bachelor of Arts.

2. That the Examination commence on the first Monday in December.

3. That in this Examination one paper at least shall be allotted to each of the following subjects :

(1) English History.

(2) } Social subjects, to be selected, generally speak-
(3) } ing, from the periods termed Ancient, Mediæval,
(4) } and Modern respectively.

(Either (3) or (4) to be always taken from English History. In subjects (2), (3), and (4) some knowledge of the chief original sources will be expected.)

(5) Principles of Political Philosophy and of General Jurisprudence.

(6) Constitutional Law and Constitutional History.

(7) Political Economy and Economic History.

(8) Public International Law in connexion with selected Treaties.

(9) Subjects for Essays.

4. That it be the duty of the Board of Historical Studies to give public notice of those subjects which vary from time to time, at the end of the Easter Term in the (civil) year next

but two * preceding the Term in which the Examination in such subjects will be held.

5. That the Board be empowered to publish from time to time a list of books recommended, and to modify the same as occasion may require ; books in other languages than English not being excluded.

6. That the names of those Students who shall acquit themselves so as to deserve Honours be arranged in Three Classes in order of merit, and that the Examiners shall send to the Vice-Chancellor a list of those who shall acquit themselves so as to deserve the Ordinary B.A. Degree or to be excused the general Examination for the same.

The remaining regulations are the same as in the Law Tripos.

* See *Univ. Reporter* for June 3, 1879, p. 680, Grace 20.

THE ORIENTAL TRIPOSES.

THESE two Examinations in the Semitic and Indian Languages were instituted in consequence of a Report issued by the Board of Oriental Studies, Nov. 13, 1871, expressing an opinion that "the time had now arrived for assigning to the Oriental languages a more prominent position amongst the studies at the University," and recommending the establishment of a 'Tripos or Triposes.

As the study of the Oriental languages is now placed on the same footing as the other recognized branches of learning, degrees being conferred, and a tendency exhibited by several Colleges to bestow fellowships and scholarships for proficiency therein, there is little doubt but that they will before long attract a fair share of the attention of the Students of the University. There are indeed many classes of Students to whom a knowledge of these languages would be invaluable, but who have been hitherto prevented from turning their attention to them from the very fact of their not entering into the University *curriculum*. How useful, for example,

is a knowledge of Hebrew, Chaldee or Syriac to the young theologian ; and how invaluable is a knowledge of Arabic, Persian or Hindustani to the military or diplomatic cadet, whose profession is almost certain to take him sooner or later to the East ; to say nothing of the large number of people whom business or pleasure continually calls to India or the Levant. All disabilities, however, are now removed, and the Student whose tastes or prospective pursuits incline him towards Oriental languages may by their means pass through his University course and proceed to a degree. Apart from such merely utilitarian considerations, these languages may compare very favourably with Classics and Mathematics as instruments of mental discipline and culture ; their copious vocabularies and intricate grammatical systems call into play all the resources of the intellect, while the extent and antiquity of their literature, and its intimate connexion with almost all questions that we hold to be of vital importance, moral, social or religious, cannot fail to attract and charm the thoughtful mind. It is true that as the Oriental languages are not yet taught, except to a very limited extent, in our schools we cannot expect them to attain all at once to the same position as the more time-honoured and orthodox studies. The same amount of proficiency cannot, for instance, be expected of a man whose acquaintance with his subject dates only from his first entry at College as from another who has learnt the elements of

his subject with his alphabet. Due consideration has been given to this point, and the standard has been greatly reduced, in quantity at least, from that originally proposed. When the importance of these studies becomes more fully recognized, and the fact that *the University confers honours and awards prizes for proficiency in Oriental languages* becomes more generally known, schools will, no doubt, by sending up boys properly prepared in these subjects, contribute towards raising the standard and giving effect to the movement. In order to meet the requirements of another class, those who having passed through one of the regular courses of study desire fresh fields for distinction, the time of residence requisite before becoming a Candidate for either of these Triposes has been extended for those who have passed in honours in any of the other Triposes, so that such students will still have two years before them to prepare themselves for examination in either the Semitic or Indian languages.

The two Triposes appeal to different classes of Students, and a word or two to aid in making the selection will not be out of place. The Semitic Languages Tripos commends itself more particularly and obviously to the intending Divinity Student, and it is not too much to say that if only a small proportion of those who take Holy Orders were to go through the course of reading prescribed in the accompanying lists it would lay the foundation of a much wider school of Theological criticism. Seeing that it is from the University that the ranks of the

Church are recruited, this is surely a consideration that should have very great weight with all who have her interests at heart. But Arabic forms as important a part of this examination as Hebrew, Chaldee or Syriac; and as the Arabic language is not only itself spoken over an immense area, but is the key to all the vernaculars of the Mohammedan world, while the Arabic literature contains an inexhaustible treasure of historic, philosophic and even scientific lore, it cannot be said that the Semitic Languages Tripos is without practical interest either to those about to engage in active secular life or to those who intend devoting themselves to literary or speculative secular pursuits.

For those who look forward to a career in India, whether in the civil or military services of Government or in legal or mercantile capacities, the Indian Languages Tripos presents exactly the range of subjects which will prove of the greatest value to them as a preparatory education. To candidates for the Civil Service of India these remarks are especially applicable. But here again, as in the other Tripos, the requirements of the more speculative scholar are not forgotten, and a thorough knowledge of Sanskrit is the best, if not the only sure starting-point for investigating the comparative philology, mythology and sociology of the Aryan nations.

I have been compelled to dwell at some length on these points, as the study of Oriental languages has been for so long comparatively neglected in

England that the fact is not yet recognized that they are of *great practical importance in the present day*, and the claims of the Oriental Triposes are likely to be overlooked as dealing with something antiquated and remote from the demands of modern progress.

The Examination for the Semitic Languages Tripos commences in each year on the Wednesday next after the general B.A. admission in January; that for the Indian Languages Tripos will commence on the Thursday next but one following such admission.

All Students who pass the Examination so as to deserve Honours, are entitled to the degree of Bachelor of Arts.

The regulations as to the standing of Candidates, &c. are the same as for the Theological and other recently instituted Triposes.

SCHEDULE OF THE ORDER OF DAYS, HOURS AND SUBJECTS AT
THE EXAMINATION OF CANDIDATES FOR HONOURS IN THE
SEMITIC LANGUAGES TRIPOS.

*The first Wednesday here mentioned is the Wednesday next after
the General B.A. Admission in January.*

DAYS.	HOURS.	SUBJECTS.
Wednesday	9 to 12.	Translation into Arabic.
	1 to 4.	Selected portions of the Kor'an, with Arabic commentary; Arabic Grammar, with passages for translation into English from a selected work of some native Grammarian.

DAYS.	HOURS.	SUBJECTS.
Thursday...	{ 9 to 12. { 1 to 4.	Selected Arabic works. Passages for translation into English from unspecified Arabic works.
Friday	{ 9 to 12. { 1 to 4.	Translation into Hebrew, and passages for pointing. Selected books of the Hebrew Scriptures, with a selected Hebrew commentary on one of the said books.
Saturday ...	{ 9 to 12. { 1 to 4.	Passages for translation into English from unspecified books of the Hebrew Scriptures. Paper on post-biblical Hebrew.
Monday.....	{ 9 to 12. { 1 to 4.	Translation into Syriac; selected books of the Syriac Versions of the New Testament. Biblical Chaldee, and selected books of the Targums and of the Syriac Versions of the Old Testament.
Tuesday.....	{ 9 to 12. { 1 to 4.	Selected Syriac works. Passages for translation into English from unspecified Syriac works.
Wednesday	{ 9 to 12. { 1 to 4.	Comparative Grammar of the Semitic Languages. Literary History of the Semitic Languages.

(a) The papers on selected works shall contain passages for translation into English, and questions on the subject-matter and criticism of such works.

(b) The papers on unspecified works may contain questions which arise immediately out of the passages proposed for translation.

(c) The paper on selected Arabic works shall include specimens of poetry and rhymed prose, with or without commentary. A competent knowledge of prosody and the rules of verse will be expected. The number of selected works shall

be at least four. The Kor'an and Grammatical works shall be excluded from this paper.

(d) There shall be at least four selected books of the Hebrew Scriptures and four selected Syriac works.

(e) The paper on post-biblical Hebrew shall contain passages for translation from at least two selected and two unspecified works.

(f) The Board of Oriental Studies shall publish a list of books bearing on the subject of the last day's Examination, and shall revise such list from time to time.

SCHEDULE OF THE ORDER OF DAYS, HOURS AND SUBJECTS AT
THE EXAMINATION OF CANDIDATES FOR HONOURS IN THE
INDIAN LANGUAGES TRIPOS.

*The first Thursday here mentioned is the Thursday next but one
succeeding the General B.A. Admission in January.*

DAYS.	HOURS.	SUBJECTS.
Thursday ...	{ 9 to 12. 1 to 4.	Translation into Sanskrit. Selected Sanskrit Dramatic and other Poems.
Friday	{ 9 to 12. 1 to 4.	Selected Sanskrit Prose works (including a philosophical treatise) and a selected portion of the Rig Veda with Sāyana's Commentary. Passages for translation into English from unspecified Sanskrit works.
Saturday ...	{ 9 to 12. 1 to 4.	Paper on Sanskrit Grammar, including a selected portion or portions of a work of some native Grammarian. Selected Persian works, including a portion or portions of the Masnavī.
Monday	{ 9 to 12. 1 to 4.	Translation into Persian. Passages for translation into English from unspecified Persian works.

DAYS.	HOURS.	SUBJECTS.
Tuesday.....	9 to 12.	Persian Grammar, and Arabic Grammar with especial reference to the forms occurring in Persian.
	1 to 4.	Selected Hindustani works, including the <i>Intikhāb i Kulliyāt i Saudā</i> .
Wednesday	9 to 12.	Translation into Hindustani.
	1 to 4.	Passages for translation into English from unspecified Hindustani works.
Thursday...	9 to 12.	Comparative Grammar of the Indo-European Languages.
	1 to 4.	History of the Indian Languages, Literature and Philosophy.

(a) The papers on selected works shall contain passages for translation into English and questions on the subject-matter and criticism of such works.

(b) The papers on unspecified works may contain questions which arise immediately out of the passages proposed for translation.

(c) A competent knowledge of prosody and the rules of verse will be expected.

In order to obtain a place in the First Class in the Semitic Languages Tripos it will be necessary to exhibit a competent knowledge of *two* out of the three languages, Arabic, Hebrew and Syriac, as well as of the Comparative Grammar of the Semitic Languages. For a First Class in the Indian Languages Tripos the Candidate must also be successful in two subjects, either in Sanskrit and Comparative Grammar, in Persian (including the Arabic element) and Comparative Grammar, or in Hindustani together with either Sanskrit or Persian.

The following are the lists of subjects prescribed by the Board of Oriental Studies for the Examinations in 1882—1883.

SEMITIC LANGUAGES TRIPOS.

1882.

ARABIC.

Wright's Arabic Reading-Book, Part First, pp. 1—93.

Elfachri (ed. Ahlwardt), pp. 88—175.

Al-Hariri—Makāmah 7. with Commentary (De Sacy's Al-Hariri, 2nd ed.).

The Mo'allakah of Zohair, with Commentary (ed. Arnold).

The Kor'an.—Sūr. 1, 19, 90—114; with the Commentary of al-Baidhawī (ed. Fleischer) on Sūr. 19.

The Alfīyah with Commentary (ed. Dieterici), pp. 140—183.

HEBREW.

Exodus, with Rashi's Commentary (ed. Berliner).

Ruth. Proverbs. Hosea.

Pirke Aboth (ed. C. Taylor).

Maimonides—The Yad ha-k'zakah, Book 2.

SYRIAC AND CHALDEE.

The Gospel of S. Luke in the Curetonian text.

The Gospel of S. John in the Harklensian version (ed. Bernstein).

The Targum of Onkelos on Exodus.

The Targum on Ruth (Hagiographa Chaldaice, ed. De Lagarde, or The Book of Ruth in Hebrew and Chaldee, ed. C. H. H. Wright).

The Book of Proverbs in the Peshittā version.

The Book of Ruth in the Hexaplar Syriac version (ed. Rōrdam).

Aphraates (ed. Wright), Homilies 7, 8.
 The Doctrine of Addai (ed. Phillips).
 Cureton's Ancient Syriac Documents, pp. 86—107.
 Chronique de Josué Stylite (éd. par l'Abbé Martin).

1883.

ARABIC.

Wright's Arabic Reading-Book, Part First, pp. 1—93.
 Elfachri (ed. Ahlwardt), pp. 88—175.
 Al-Ḥarīrī—Maḳāmah 7, with Commentary (De Sacy's
 Al-Ḥarīrī, 2nd ed.).
 The Mo'allakah of Zohair, with Commentary (ed.
 Arnold).

The Kor'ān.—Sūr. 1, 19, 90—114; with the Commentary
 of al-Baidāwī (ed. Fleischer) on Sūr. 19.

The Alfīyah with Commentary (ed. Dieterici), pp.
 140—183.

HEBREW.

Exodus, with Rashi's Commentary (ed. Berliner).
 Ecclesiastes. Proverbs. Hosea.

Pirke Aboth (ed. C. Taylor).
 Maimonides—The Yad ha-ḥ^azaḳah, Book II.

SYRIAC AND CHALDEE.

The Gospel of S. Luke in the Curetonian text.
 The Gospel of S. John in the Harklensian version
 (ed. Bernstein).

The Targum of Onkelos on Exodus.
 The Targum on Ecclesiastes (Hagiographa Chaldaice, ed.
 De Lagarde).

Proverbs in the Peshittā version.

Ecclesiastes in the Hexaplar Syriac version.

Aphraates (ed. Wright), Homilies 7, 8.

The Acts of St Thomas (Wright's Apocryphal Acts of the Apostles).

Abbeloos. De Vita et Scriptis S. Jacobi Batnarum Sarugi in Mesopotamia Episcopi, pp. 202—301.

Chronique de Josué Stylite (éd. par l'Abbé Martin).

INDIAN LANGUAGES TRIPOS.

1882 and 1883.

SANSKRIT.

Hitopadesa (ed. Johnson), Books I. II.

Rámáyana (ed. Schlegel), Book II. Chaps. 1—35.

Sakuntalá (ed. Monier Williams or Böhtlingk).

Manu, Books II. III. VI. with Kullúka's Commentary on Book II.

Dasa-kumára-charita, Books I. II. (ed. Bühler, *Bombay Sanskrit Series*, pp. 40—76).

Rig-Veda. The 3rd and 4th Anuvákas of the 3rd Mandala, with Sayana's Commentary, omitting the grammatical portion. Vol. II. pp. 786—937 (ed. Max Müller).

Vedánta Sára.

Siddhánta-Kaumudí, part of the Káraka section (Calcutta, 1864). Vol. I. pp. 244—294.

PERSIAN.

The *Masnawī* of Maulānā Rūmī, Book I. To the end of the Story of the Lion and the Hare.

The *Shāh Nāmāh* (ed. Turner Macan). The Satire on Mahmūd, and the Episode of Rustam.

Selections from the *Diwān i Hāfiz*. The Ghazals in ج and د (Bombay, 1860).

The *Muntakhab al-Tawārīkh* (Calcutta, 1865), *Bibliotheca Indica*, Vol. II. pp. 1—160.

Akhlāq i Jalālī (Lakhnau Edition), pp. 1—94.

HINDUSTANI.

Intikhāb i Kulliyāt i Saudā (Calcutta, 1847), pp. 1—118.

Zabt i 'Ishk by Murdān 'Alī Khān (Lakhnau Edition).

Akhlāq i Hindī (ed. Syed Abdoollah).

The *Arāyish i Maḥfil* of Afsos (ed. Lees, or Calcutta Edition of 1808).

The foregoing schedules and lists contain all that is required for the Examination; the respective Professors will afford every information and help to intending candidates, in addition to the lectures which they, and other members of the University, specially appointed for the purpose, give in each of the subjects. These lectures include elementary instruction; but as this work appeals to many who have not yet matriculated, and a previous acquaintance with the languages, however slight, will prove of the greatest service, it will be well to give a few hints for the guidance of the beginner.

Having determined which of the languages he will take up, he should provide himself with the works in that language recommended in the following lists.

ARABIC:

Wright's *Arabic Grammar*. Williams and Norgate, 1874.

Palmer's *Arabic Grammar*. W. H. Allen and Co.,

13 Waterloo Place, London, 1874.

Palmer's *Arabic Manual*. W. H. Allen and Co.,

13 Waterloo Place, London, 1880.

Wright's *Arabic Reading Book*. Williams and Norgate, 1870.

The *Diwān* or *Poems* of El Behā Zoheir, with metrical translation and notes by E. H. Palmer. Printed for the Syndics of the University Press, Cambridge. 3 vols. Vols. I. and II., containing the text and translation, are already published. Cambridge Warehouse, Paternoster Row, London.

Catafago's *Arabic Dictionary*. Quaritch, Piccadilly, London, 1873.

HEBREW:

Gesenius' *Hebrew Grammar*, translated by Dr Davies. Asher, London, 1869.

Mason's *Hebrew Exercise Book*. Hall, Cambridge.

Gesenius' *Hebrew Lexicon*, translated by Robinson. American ed.

SYRIAC:

B. H. Cowper's *Syriac Grammar*. Williams and Norgate, 1858.

G. Phillips' *Syriac Grammar*, 3rd ed. Camb. 1866.

Bernstein's *Chrestomathia Syriaca*. Lipsiæ, 1832—1836.

ÆTHIOPIC:

Dillman's *Æthiopic Grammar*. Leipsic, 1857.

Dillman's *Æthiopic Chrestomathy*. Leipsic, 1866.

CHALDEE:

Fürst's *Chaldäisches Lesebuch*. Leipsic, 1864.

For the last three languages, Dr Wright's *Book of Jonah in four Semitic Versions* [*Chald. Syr. Æth. Ar.*] may also be used with much advantage.

SANSKRIT :

Monier Williams' *Sanskrit Grammar*. Oxford, Clarendon Press, 1864.

Max Müller's *Sanskrit Grammar*, 2nd ed. London. 1870.

Johnson's *Selections from the Mahābhārata* (with vocabulary). W. H. Allen and Co., London, 1842.

Johnson's *Hilopadesa*, with vocabulary. W. H. Allen and Co., 1864.

PERSIAN :

Mirza Ibrahim's *Persian Grammar*.

Forbes' *Persian Grammar*. W. H. Allen and Co., London.

The *Gulistan* of Sâdî, ed. Johnson. Hertford, 1863.

„ „ Platts. W. H. Allen and Co., 1871.

Palmer's *Persian Dictionary*. Trübner and Co., London, 1874.

HINDUSTANI :

Platts' *Hindūstāni Grammar*. W. H. Allen and Co., 1874.

Forbes' *Hindūstāni Manual*, ed. Platts. W. H. Allen and Co., 1874.

Forbes' *Hindūstāni Dictionary*. W. H. Allen and Co.

Akhlāk i Hindī, ed. Syed Abdoullah. „ 1868.

Of course the assistance of a competent teacher should be if possible obtained, but it will be found quite possible to make a fair start by the help of the books above prescribed. As soon as he can read with tolerable fluency, the student should exercise himself with easy pieces of poetry, which are the best possible means for impressing words and constructions upon his memory. He should at the same time always endeavour to master the *metre* in which the poem is written; this will assist the memory and familiarize him with the correct *accent*. The metrical systems of the Persian and Hindustani languages are founded upon that of the Arabic, a full account of which, with examples, will be found in

Palmer's *Arabic Grammar*. Orientals of even moderate education are generally acquainted with at least one Eastern language besides their own, which they acquire with little trouble, and speak and write, as a rule, much better than an Englishman can ever speak or write a foreign language. The reason is, that they begin by committing easy pieces of poetry to memory, having great regard to the metre. The value of this method of acquiring a language can scarcely be over-estimated, and the framers of the Oriental Languages Tripos appreciated the fact, when they laid down the rule, that "a competent knowledge of prosody and the rules of versification would be expected of the Candidates."

Another most useful exercise is that of translating prose passages from the text-books into English, and after a short time retranslating them into the original language. By this means, a clear insight into the structure of the Oriental tongues, which differs considerably from that of the European, may be gained in a comparatively short time.

In conclusion, I would remind the student, that the Oriental languages are by no means so difficult or so abstruse as is generally supposed. The use of an unfamiliar character, and the want of popular information about them, have kept them out of the ordinary range of educational subjects; the Arabic, Hebrew or Sanskrit characters may however be completely mastered in a few days by any person of average ability, and this Rubicon once crossed, the rest of the way will be found smooth and easy enough.

THE ORDINARY (*or* POLL) DEGREE.

THE greater number of the Students in the University take only an Ordinary Degree, and it had long been objected that the Cambridge course for this degree consumed more time than could be spared by young men who were designed for professions, and who would have to spend some further time on education elsewhere to prepare them for their special duties.

The plan of the Examinations to be passed by the Candidate for this degree has therefore been changed, in accordance with a scheme issued by the Council in May 1865, and subsequently approved by the Senate. These Examinations are now *three*: (i) The Previous Examination. (ii) The General Examination. (iii) The Special Examination.

Supposing the Candidate for an Ordinary Degree to enter in the Michaelmas Term (the usual time) of 1881, and go on uninterruptedly to his degree, he may pass the Previous Examination

ORDINARY DEGREE.

ADDITIONS AND CORRECTIONS, pp. 38, 43, 48.

P. 38, line 8. The examination is now conducted *entirely by printed papers.*

P. 43, line 6. An alteration has been made in the subjects for the Law Special. Justinian's *Institutes* are no longer a subject. The subjects now are:

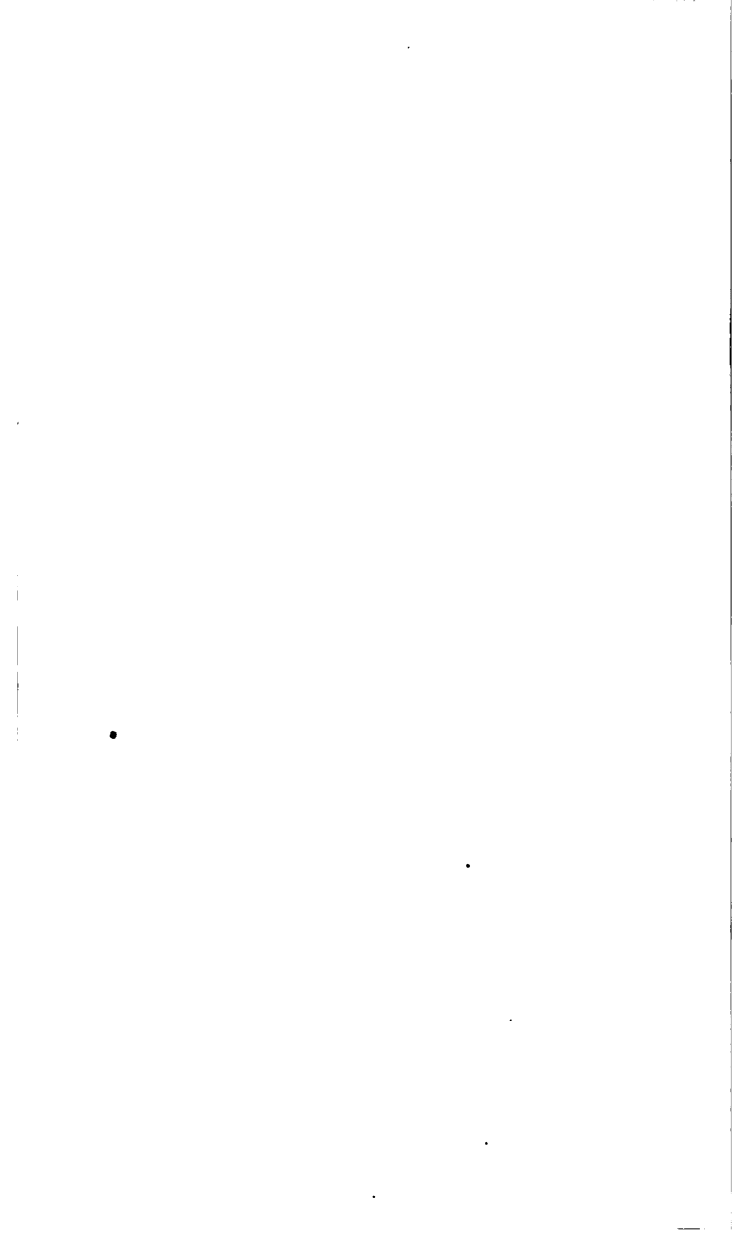
1. Blackstone's *Commentaries*. Two papers on the following chapters, according to the arrangement adopted in Kerr's unabridged edition. *4th Edition*, 1876.

- i. All those contained in Bk. 1 (not the Introduction). ii. In Bk. 2. Chaps. 1, 2, 4—14, 15, pp. 203—5, 16, 19, 20, pp. 280—8, 23, 24, 25, 26, 29, 30, 32. iii. In Bk. 3. Chaps. 1—4, 8, 9, 17, 18, pp. 231—7. iv. All those contained in Bk. 4.

2. Lord Mackenzie's *Roman Law*. One paper on the whole Book, except the chapter entitled Preliminary and Parts 5 and 6.

Selected Candidates for the Indian Civil Service are allowed the alternative of examination in the Indian Contract Act and in the Indian Penal Code, instead of the two papers on Blackstone.

P. 48. For the last paragraph read: in the Theological subjects the following books may be read with advantage: Perry's *History of the English Church*. *First period*, 596—1509 A. D. From the planting of the Church in Britain to the Accession of Henry VIII. *Second period*, 1509—1717 A. D. From the Accession of Henry VIII. to the silencing of Convocation in the 18th century. A continuation of Dr Short's history, which will thus cover the whole period of Church History, is announced by Messrs Deighton, Bell, & Co. *Ecclesia Anglicana* is the title of a History of the Church of Christ in England from the earliest to the present time, by A. C. Jennings. Massingberd's *English Reformation*, and Prof. Blunt's *Sketch of the Reformation in England*, are useful books.



Part I or Part II or the whole at the close of his first term of residence, though he may defer it or any part of it till the Easter or Michaelmas Term of 1882. His General Examination will be in the Easter Term 1883; and his Special Examination in the Easter Term 1884.

He must *at least* be in his first term of residence when he goes in for the first, in his fifth term when he goes in for the second, and in his ninth term when he goes in for the third of these Examinations.

I. The Previous Examination consists of two parts, the *first* embracing four subjects, viz.

- (1) One of the four Gospels in the original Greek (for Natives of India this may be omitted).
- (2) One of the Latin Classics.
- (3) One of the Greek Classics, or, for Natives of India, if they prefer it, one or more of the Sanskrit, or Arabic Classics; or a selected portion of such Classic or Classics equal in amount to the Greek subjects.
- (4) A paper of questions on Latin and Greek Grammar with reference principally to the set Latin and Greek subjects, or, for Natives of India, if they prefer it, a paper of questions on Latin and Sanskrit Grammar, or

Latin and Arabic Grammar, with reference principally to the set subjects in those languages.

And the *second* part embracing the following four subjects :

- (1) Paley's Evidences of Christianity.
- (2) Euclid, Bks. I. II. III, Definitions 1—10 of Bk. V, and Props. 1—19, and A. of Bk. VI.
- (3) Arithmetic. (Algebraical symbols may be employed in the solution of the questions in Arithmetic.)
- (4) Elementary Algebra, viz. definitions and explanations of algebraical signs and terms; addition, subtraction, multiplication, and division of algebraical quantities and algebraical fractions; the elementary rules of ratio, proportion and variation; and easy equations of a degree not higher than the second, involving not more than two unknown quantities.

[When a Student holds a Certificate from the Oxford and Cambridge Schools Examination Board, he is excused,

- (1) From the first part of the Previous Examination, if he has passed in Scripture Knowledge (shewing a satisfactory acquaintance with the Greek Text of the New Testament subject), Greek and Latin.

(2) From the second part of the Previous Examination, if he has passed in Scripture Knowledge, and has also passed in Elementary and Additional Mathematics.

When a Student holds a Certificate (Senior) from the Local Examinations Syndicate, he is excused,

(1) From the first part of the Previous Examination, if he has passed in Religious Knowledge, including the original Greek of the Gospel, and has attained a certain standard in Greek and in Latin.

(2) From the second part of the Previous Examination, if he has attained a certain standard in Religious Knowledge, in Euclid and in Algebra.

When a Student holds a Certificate (Higher) from the Local Examinations Syndicate, he is excused,

(1) From the first part of the Previous Examination, if he has passed in Religious Knowledge, in Greek and in Latin.

(2) From the second part of the Previous Examination, if he has passed in Religious Knowledge, in Group A, and in sections 2 and 3 of Group C.

N.B. Students who hold Certificates excusing them from any part of the Previous Examination, must present their certificates to the Registry in their first term of residence and pay to him the ordinary fee for the part or parts from which they are excused.]

No Student will be approved by the Examiners for either part of the Previous Examination unless he shew a competent knowledge of *all* the subjects in that part of the Examination.

Notice of the particular Gospel and the Classical subjects for each year is given more than a year before the Examination.

In all the subjects, ~~except the Latin~~, the Examination is conducted by printed papers: ~~in the Latin subject partly by papers and partly *ad* voce.~~

To insure passing in this Examination the Student should be well prepared in the Greek and Latin Grammar and in Arithmetic before entering the University. Great accuracy in grammatical knowledge is insisted on by the scheme for the General Examination. The papers on the Classical subjects and on the Gospel consist of passages to be translated and explained, together with such plain questions in Grammar (especially Accidence), History and Geography as arise immediately out of the subject. All the Students are required to conform in their written papers to the rules of English Grammar, including Orthography. In the Michaelmas Term of each year there is a Second Examination in the same subjects, for Students who have either been unsuccessful in their first trial, or who have only passed one-half of their Examination at Easter, or who from any cause were not able to present themselves for Examination at that time.

II. For the General Examination the subjects are :

- (1) The Acts of the Apostles in the original Greek.
- (2) One of the Latin Classics.
- (3) One of the Greek Classics.
- (4) Algebra ; viz. easy equations of a degree not higher than the second involving not more than two unknown quantities ; the proofs of the rules of Arithmetical and Geometrical Progression with simple examples ; and easy problems in Elementary Algebra.
- (5) Elementary Statics, treated so as not necessarily to require a knowledge of Trigonometry, namely, the composition and resolution of forces acting in one plane at a point, the mechanical powers and the properties of the centre of gravity.
- (6) Elementary Hydrostatics, namely, the pressure of non-elastic fluids, specific gravities, the properties of elastic fluids, and the principal instruments and machines whose action depends on the properties of fluids : and Heat, which subject may embrace questions on Temperature and Heat ; the processes of Conduction, Convection and Radiation ; the effects of Heat when applied to solids, liquids and gases ; the construction of a common Thermometer ; the comparison of Thermometric scales ;

the formation of Dew, Hoar-frost, Clouds and Rain ; Congelation and Ebullition.

No person will be approved by the Examiners unless he shew a competent knowledge of each of the above subjects.

There are also given two optional papers, one (7) containing one or more passages of English for translation into Latin Prose : and the other (8) one or more subjects for an English Essay, and questions on some play of Shakespeare or some portion of the works of Milton which shall have been specified by the Board of Examinations in the Easter Term of the preceding year. The marks obtained in these papers are taken into account in assigning the places in the Class List.

This Examination is conducted entirely by printed papers, and questions in Grammar (especially Syntax), History and Geography are appended to the papers on the Greek Testament, and the Classical Subjects.

The easy problems in Elementary Algebra are confined to questions producing simple or quadratic Equations, and questions on Ratio, Proportion and Variation, and on Arithmetical and Geometrical Series. The papers in Statics and Hydrostatics consist of questions on the principles and propositions, together with easy examples and applications arising out of the subjects.

The Classical subjects for each year are made known a year before the Examination.

In November of each year there is an addi-

tional Examination in the same subjects for unsuccessful Students and others who have not passed in the Easter Term.

III. The Special Examinations are designed to give a more professional character to the studies of the latter portion of the Undergraduate course.

These are six in number (1. Theology, 2. Moral Science, 3. Law and Modern History, 4. Natural Science, 5. Mechanical and Applied Science, 6. Music), the subdivisions of which are explained hereafter. The Student must pass one of them before he is admitted to the Ordinary B.A. Degree.

1. For the Special Theological Examination the subjects are :

- (i) Selected Books of the Old Testament in English.
- (ii) One of the four Gospels in the original Greek.
- (iii) One or more of the Epistles in the original Greek.
- (iv) (a) Outlines of English Church History down to 1830.
(b) A selected subject or period of English Church History.

Notice is given a year beforehand of the particular books in the Old Testament, and of the Gospels and Epistles and of the selected subject or period of English Church History appointed for each year.

An additional paper is also set in the Hebrew of a selected portion of the Old Testament (of which a year's notice is given), but this part of the Examination is not compulsory, though the marks gained in it are taken into account in assigning the places of Students in the Class List, and the names of such as acquit themselves with credit therein have marks of distinction attached to them.

2. For the Special Moral Science Examination the subject is divided into two branches, in only one of which the Student can be examined.

In each branch three papers will be set.

The branches are

(i) *Logic.*

Jevons' Elementary Lessons in Logic, chapp. 1—22.

Fowler's Inductive Logic.

Mill's Logic.

Locke's Essay on the Human Understanding,
Book III. and chapp. 6, 7, 8, 12, 17, of
Book IV.

(ii) *Political Economy.*

Smith's Wealth of Nations (McCulloch's edition), Books 3 and 4.

Fawcett's Manual of Political Economy.

Mill's Political Economy, Books 1, 2, 3.

Cairnes' Character and Method of Political Economy.

3. The Special Law and Modern History Examination is likewise divided into two parts, of which only one may be taken up by the Student. The subjects in

(i) *Law*, are

- (1) Justinian's Institutes in the original Latin.
- (2) Lord Mackenzie on Roman Law, or the Elements of Hindu and Moham-medan Law.
- (3) Any recent edition of Blackstone's Commentaries on the Laws of England, except the parts relating to Procedure, viz. Book III. chapp. 6—18 inclusive.

(ii) In *Modern History* the subjects are

Outlines of English History, from the Norman Conquest to the accession of George IV.

Hallam's Constitutional History.

A period of European History, of which notice is given in the Easter Term of the preceding Year.

4. For the Special Examination in Natural Science the branches are, (1) Chemistry, (2) Geology, (3) Botany, (4) Zoology, including Anatomy and Physiology.

The Student will not be examined in more than one branch, and that by printed papers, but the Examiners shall be at liberty, if they think fit, to

examine the Students orally on the Specimens exhibited, and on the work done in Practical Chemistry.

The precise portions of each of the above branches which are comprehended in the Examination are defined by a Schedule to be found in the *University Calendar*.

5. For the Special Examination in Mechanism and Applied Science, five papers of questions are given, one in each of the following subjects: (1) Mechanics, including Statics, Dynamics and Hydrostatics, with special reference to their applications in Engineering; (2) Heat, with special reference to practical applications, more particularly the Steam-Engine, its History, Theory, and Construction; (3) Mechanism; (4) Theory of Structures, Strength of Materials, and Principles of Surveying and Levelling; (5) Electricity and Magnetism. The papers 1 and 2 are obligatory on all Candidates, and Candidates shall choose one and only one of the other three.

Every Candidate is further required to satisfy the Examiners as to his ability to write an accurate description or specification of an instrument, machine or model exhibited, and to make a working sketch to scale.

Every Candidate is further required to satisfy the Examiners in a practical manner as to his skill in the use of the tools or instruments required in the alternative subject which he chooses.

6. Special Examination in Music. The subjects are

(i) *Acoustics*.

Sensation and external cause of sound. Mode of its transmission. Nature of wave motion in general. Application of the wave theory to sound. Elements of a musical sound. Loudness and extent of vibration. Measures of absolute, and of relative, pitch. Resonance. Analysis of compound sounds. Helmholtz's theory of musical quality. Motion of sounding strings. The pianoforte and other stringed instruments. Motion of sounding air columns. Flue and reed stops of the organ. Orchestral wind instruments. The human voice. Interference. Beats. Helmholtz's theory of consonance and dissonance. Combination-tones. Consonant chords. Construction of the musical scale. Exact and tempered intonation. Equal temperament. Systems of pitch notation.

In this subject no knowledge of mathematics beyond arithmetic is required.

(ii) *Counterpoint*, in not more than three parts.

(iii) *Harmony*, in not more than four parts.

The Examination is conducted partly on paper and partly *viva voce*.

The Board of Musical Studies mention the following works as most advantageous to be studied :

(1) Helmholtz, *Die Lehre von den Tonempfindungen*. Parts I and II. (Vieweg, Braunschweig.)

(2) Ellis's Translation of the same.

(3) Sedley Taylor, Sound and Music.

The Special Examinations in Theology, Moral Science, Law, and Modern History, are conducted by printed papers only, and in the class lists of all the Special Examinations the first class alone is arranged in order of merit, the other class or classes alphabetically. A second Examination is provided in the Michaelmas Term of each year for such Students as, for any reason, do not obtain a degree in the June Examinations.

It will be seen that by this scheme the reading which was formerly spread over the whole time of residence is now to be completed in the first two years, thus leaving the last year of the University course open for the pursuit of professional studies, of whatever nature the Student may desire. Of course to get through this work in so much shorter time implies a more thorough training before coming into residence. This cannot be too strongly impressed on both Students and Teachers. Under the old regulations many men failed, but now that the time is curtailed, more care than ever will be needed to ensure success. Beside this, in the case of those Students who come to the University induced by the offer of a partially professional training, failure will become a serious matter, as the extra time consumed by any ill success in the Previous or General Examination will be deducted from the year which is intended for the exclusive pursuit of the special studies.

With regard to the difficulties of the several

Examinations, it has been found that in the Previous Examination the paper on Greek and Latin Grammar, and the grammatical questions attached to the Greek Testament and Classical papers in the General Examination have proved severer tests of accuracy in training than had before been given. The best books for preparing for this part of the Examination are the smaller Grammars of Dr Donaldson or the late Professor Key, or the Public School Latin Primer, the smaller Latin Grammar of Curtius, or that of Mr Roby, and the Greek Grammars of Curtius, Arnold, Parry, Wordsworth, or Abbott and Mansfield.

Another subject proved by past experience to be of the greatest difficulty in the Previous Examinations is the Arithmetic. Public schools have as yet given little attention to this subject. No great stress is laid upon the study of it, and consequently the schoolboy learns to despise what he calls "sums." The dislike grows upon him, and when he comes to the University he finds the paper on Arithmetic a most serious ordeal. Moreover, in the books on Arithmetic the questions are too generally shaped so as to come under some rule of arrangement which the pupil has been taught, without much regard to the principle on which it is based. In the Previous Examination the questions are not of this character. They require the Student to put them into shape for himself, and at this point many men break down.

In the General Examination there is a new fea-

ture introduced, viz. the Voluntary Papers in English Prose Composition and on portions of Shakespeare and Milton, and the translation from English into Latin Prose. It is to be hoped that, as the marks tell in the Examinations, although these Papers are voluntary, all the Students who wish for a first or second class will be induced to give their diligence to these subjects. Of the value of English Composition there can be no doubt. Good sense, taste and judgment are all alike called for in the composition of a respectable Essay. As for the Latin portion of the paper, it has now become almost general among the Bishops to require Latin Prose Composition in their Examinations for Holy Orders. And as future candidates for orders always form a considerable proportion of those who present themselves for the Ordinary Degree, the paper is one which should, on this account, receive a due amount of attention.

The text-books which are most used for the Elementary Mechanics, Hydrostatics and Trigonometry, are the treatises by Todhunter, T. P. Hudson, McDowell, and Hamblin Smith. The last named has published a complete series of Elementary Mathematical Works designed for the Previous and General Examinations. The most useful works on Heat are those by Prof. Maxwell, Mr Garnett, or Deschanel, or the portion of Ganot's Physics which deals with that subject.

With regard to the Special Examinations—in the Theological subjects the book which alone covers

the period of Church History appointed is Dr Short's History of the Church of England. Massingberd's English Reformation, and the Sketch of the Reformation in England, by the late Prof. Blunt, may also be read with much advantage.

For the whole of the Greek Testament the notes of Bishop Wordsworth or Dean Alford are no doubt the best. Bishop Lightfoot has also published very excellent Commentaries on the Epistles to the Galatians, Philippians, and Colossians and Philemon, and these and the other Epistles have been edited with copious notes by Bishop Ellicott. The Cambridge Bible for Schools, though at present only embracing (with the exception of St Matthew's Gospel) notes on the Authorized Version, will be found very helpful for the study of the original. The Greek text of the Gospel of St Matthew with notes is already published in this series, and other volumes on the original text are in preparation. These books are such as will be used by the Student who wishes thoroughly to master his subject.

It is greatly to be wished that all the Students who intend to take Holy Orders should devote a portion of their time to the study of Hebrew. A knowledge of this language is more and more imperatively called for in those who are to be the clergy of the coming generation. The Grammar of Hurwitz and that of Bernard and Mason are admirably adapted to help the beginner. A new and very exhaustive Hebrew Grammar (with exercises in Hebrew Composition) has been issued

by Mr Mason. As a first reading-book nothing could be better than Bernard's Guide to Hebrew Students, appended to which is a very useful glossary. Buxtorf's small Lexicon is the best to use at first.

In the Moral Science Examination the books to be used are laid down in the Scheme.

In the Law Examination the edition of Justinian best suited to the Student's wants is that of Mr Sandars, and the translation of the Institutes by Dr Abdy and Dr Bryan Walker will be found very useful.

In Natural Science, for Zoology the books most recommended are Milne Edwards' Elementary Course of Zoology and W. B. Carpenter's Zoology. For Botany, the Manual of Professor Henslow, and Balfour's Outlines, together with the Schedules and Lectures of the Professor, will be found to be enough. It is from the lectures alone that Structural Botany can be thoroughly learnt. For Chemistry, Ganot's Physics, Williamson's Chemistry for Students, and Wilson's Chemistry published in Chambers' Educational Course are recommended,—and for more advanced students Fowne's Manual and Miller's Organic and Inorganic Chemistry; and in Geology, Page's Geology, the Manual by Mr Jukes, and Syell's Outlines of Geology.

Thus is provided for each of the three undergraduate years its suitable work, and there will not be, as heretofore, the long and undesirable interval of

time unemployed between the Previous Examination and the approach of the Ordinary Degree. And though one entire year is given up to professional pursuits, nearly the same amount of work is accomplished in two years which formerly occupied three, and the University has at the same time retained her academic training, and yet adapted her teaching in a very great degree to the spirit of the present times.

UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS, LECTURES, &c.

IN June, 1857, the University of Oxford passed a Statute establishing annual Examinations of persons not members of the University. The general plan, and many or most of the details, were due to Mr T. D. Acland and Dr Temple. The idea was encouraged, and suggestions for its realization were made, by many men of eminence in very different professions, amongst whom may be specially mentioned Messrs Ruskin, Dyce, Hullah, Richmond, Prof. Max Müller, and Dr Harvey Goodwin, besides many actively engaged in the work of education in the large Grammar Schools. The University of Cambridge readily adopted the general plan of Examinations; and, after making such alterations as were suggested by renewed correspondence with those engaged in education, established in Feb. 1858 a scheme which in all but minor details was the same as that now in operation. The first

Examination by the University of Cambridge took place in December, 1858. Girls were admitted to the Cambridge Examinations in 1865.

The promoters of these Examinations were anxious to fill a void in the education of the country. The system of inspection carried out by the Privy Council afforded an adequate test and stimulus for the schools of the poorer classes. The Universities exercised a powerful though in some degree indirect influence over the great schools of the country, partly by the stimulus of scholarships and fellowships and partly by supplying the teachers and examiners of the schools, means aided by the general acceptance of University standards in all that belongs to the higher education of the country. But the schools lying between the National Schools and the larger Grammar Schools had no direct encouragement held out to them, no system of inspection over them, no recognised and sufficient criteria of merit as regards either schools or scholars. That the Society of Arts did not supply all that was needed for this purpose is clear from their own words in the programme of their Examinations for 1858, wherein they hailed the Statute of the University of Oxford with cordial satisfaction.

At first the scheme was regarded as an experiment, but it has now taken a definite place in the country, and has been extended so as to include the examination of girls. In 1881, 4,176 boys and 2,810 girls entered as Candidates; and the Examina-

tions were held at 110 centres for boys, and 96 for girls. The Colonies have availed themselves of the opportunity afforded for encouraging education and giving it a right direction. The teaching in a large number of schools is now specially arranged to suit these Examinations; Local Boards have instituted prizes for the most distinguished candidates at their particular centre of examination; one College in Cambridge (St John's) offers Sizarships, with £30 a year added, to the best candidates; statesmen appear at public meetings to distribute the prizes and add publicity and *éclat* to the successful exertions of the youthful candidates; and formal notice is taken of the Examinations by Regulations of the Councils presiding over the great Professions*. The University allows students who have obtained certificates in certain branches of the Local Examination work, to become candidates for the degree of Bachelor of Music and to be excused part or the whole of the Previous Examination. The zeal with which persons interested in the education of girls have taken up the Local Exami-

* Students who have passed the Cambridge (or Oxford) Examinations are exempted by the General Council for Medical Education from any other preliminary examination; by the Commissioners for regulating the examination of persons proposing to enter into articles of clerkship to attorneys or solicitors from any further examination in general studies; and by the Inns of Court from the preliminary examination for persons proposing to prepare for the Bar. See also page 61.

nations and the success which girls have achieved are worthy of very high praise.

It is not asserted that these Examinations supply all that is wanted for the Schools which are within their scope. They cannot do all that regular inspection might do, for they do not test actually and directly the teaching throughout the schools which send pupils to them. A master may choose to send in only his best boys, in which case it might be urged that the result of the Examinations is not a good criterion of the efficiency of the school. High honours obtained by a few boys might raise a suspicion that the great mass of the school has been to some extent neglected while special care has been bestowed on a few of the best boys. It is worth while to consider how far such objections are likely to correspond to facts.

Inspection is not precluded by the present scheme. On the contrary, the Local Examinations Syndicate are authorised to entertain applications for the appointment of one or more persons to examine the scholars of any school making application and to report to the Syndicate. The number of schools submitting themselves to this inspection has for some years increased as rapidly as the number of the candidates for the Local Examinations has increased. In 1881 between 70 and 80 whole schools were thus examined, with an aggregate number of students little if at all short of the number examined at the last Local Examination.

But inspection itself does not answer the

purpose for which the present scheme was established, which was in the first instance to improve rather than to test. It lacks the wide competition throughout England which is so important a feature of the Local Examinations; it lacks the publicity and identity of test which shuts out local jealousies; it lacks the *éclat*—whatever that may be worth—which is given to individual success in the Local Examinations by the publication of the results on the part of the University. In the Local Examination, boys and girls from all parts of England go in to the same Examination, take the papers at the same time, have the same examiners, and appear in the same widely disseminated list of success. It should however be understood that masters and parents may obtain a better idea of the general efficiency of a school from the report of an inspecting examiner than from isolated instances of success in the Local Examinations.

It is the largeness of the competition which gives such a value to the Local Examinations as a test and stimulus. Boys in the same school do not easily rise far above their comrades, unless in some way a higher standard from the outside is brought plainly before them, to move their ambition while it shews them their deficiencies. And now that so many youths of promise and attainments stop short in their educational course without seeking to find their level in the higher lists of the University, it must be no small advantage to have an Examination in view by which they can give public proof of

their training and abilities. To the master of a school the Examinations afford an opportunity of comparison and a stimulus to exertion of which the value can scarcely be overrated. And, what in many schools is of importance almost if not quite as great, the Regulations annually issued by the Syndicate provide a suitable curriculum of study for each year.

As a matter of fact, some schools make a rule of sending in not picked boys but whole classes, and these have in several cases done the best. And although many do no doubt only send in a few boys, this does not of necessity imply any detriment to the boys who are not sent in. If good candidates are sent in, the master must be capable of teaching well; and if good candidates are frequently sent in, the other boys must be well taught, or there would be no constant supply of adequate material for the special training to take effect on. A very small amount of experience will shew a master that his best plan is to train the younger boys carefully, in readiness for future years, while he gives special instruction to the actual candidates and the classes of which they are members. The staff of masters is usually not so large as to allow the candidates to be treated in many of the subjects of examination as a class apart. The system encourages extra attention to the few candidates, rather than neglect of the many who are not candidates.

In larger schools it is both possible and desirable

to send in the whole of the higher classes. It is a better test of the teaching both for the teachers and for the friends of the candidates; the preparation for the Examination is more easily harmonized with the general work of the school; the effect on all must be very much greater, for a high standard is thus brought fully before the whole school. In some large schools, a third of the whole school is annually sent up for examination.

In smaller schools, few as the number of boys sent in to the Examination may appear, they yet in many cases practically form whole classes. And if in some cases, whether of large schools or small, only a few picked boys come in, this may, and often does imply caution on the part of the masters rather than real deficiency of general teaching. As the Examinations become better known in the school, more are sent to try their chances, and so much is this the case that it is now a prominent question with examiners and others whether it is desirable to send in idle or dull boys, with the great probability of failure, because they happen to be in the same class as other candidates. Until the University signifies its disapproval of the practice of sending in candidates who have practically no chance of passing—of which it has given no sign—the arguments are in favour of applying the stimulus to every boy in a class. Not to send in the less competent boys is to abstain from applying the stimulus to those who need it most. In the cases of new centres, and of schools which have not previously

sent in candidates, it frequently happens that the work of the candidates is very decidedly condemned. The lesson thus learned is not forgotten, and another year sees an improvement. In such cases it is evident that the University has acted wisely in admitting all candidates without any reference to the probability of their failure or success. It may be as well to point out here that many candidates who fail to obtain a Certificate pass with much credit in some one or more branches of the Examination, and so far achieve a considerable measure of success.

The recognition accorded to the Examinations is now such that if a school, professing to educate any class of boys between National Schools and those regulated by the studies of the University, declines to send in candidates for examination, it may be considered either strong enough to do without them, or weak enough to dread them. Many schools which prepare a fair proportion of their students for the Universities send in candidates, and of late years some of the very highest honours of the University, both classical and mathematical, have been carried off by men who obtained their first successes years ago as Junior candidates in the Local Examinations.

The labour of conducting the Examination is so great that the University is hardly justified in continuing the work unless some clear and direct gain to its highest interests can be shewn. The work is very properly kept as much as possible

in the hands of the residents, and they have already enough work to do in Cambridge without seeking work of a very laborious character from all parts of the kingdom. Something is wanted to make the Examinations more directly feeders to the University. This will be best supplied by the offer on the part of Colleges of exhibitions to be awarded by the results of the Examination. Worcester and Balliol, Oxford, have for some years given such prizes, and the authorities report very well of the material thus obtained. St John's has set the example in Cambridge by the offer of two Sizarships in each of the next three years, with £30 added to each for two years. Further progress in this direction would complete the link between the University and a very large class of the community now almost entirely outside its pale. The history of the country for centuries makes it clear that in this class are to be found intellects of the most robust character and material in all ways most valuable to the University. If properly supported, the Local Examinations will more and more increase the area from which able men are drawn to Cambridge.

An opinion has been expressed in public discussions, outside the University, in favour of a recognition of these Examinations by the State. It has been suggested that all schools not under Government Inspection, and not of the highest grade, should be compelled to present a certain proportion of boys of certain ages. It is doubtful

whether the work thus suggested would be fairly the function of the University, and it is also doubtful whether if such a requirement were made suddenly the Universities combined could support the strain. Still, if public opinion points unmistakably in this direction, and matters do not progress too rapidly, the University has resources from which to meet the demand. Non-resident members would be called in to the assistance of the residents in increased proportion, and an able and experienced staff would be formed without serious difficulty. It has also been suggested that in view of the great difficulty now found in obtaining teachers for elementary schools under the increased demands of the Education Department, the University Senior Certificate should be accepted as a sufficient qualification so far as a knowledge of the subjects of instruction is concerned.

The University has shewn its willingness to respond to a reasonable demand from the outside for an extension of the sphere of its operations, by establishing (February, 1882) an additional Examination in September, in subjects the same as those for the following December, for the special convenience of persons who desire to register as Medical Students early in October. It is expected that many persons who intend to enter the University at Michaelmas will take this opportunity of obtaining exemption from the Previous Examination.

It has been objected by the Schools Enquiry

Commissioners that these Examinations are expensive. This means little more than that the expense is felt directly by the individuals concerned, instead of appearing as an item in the estimates laid before Parliament. Government Inspection would be found expensive if payment for it were levied directly from the schools; and no Government Office could do the work done by the Cambridge Syndicate at nearly so little cost. The Scheme is self-supporting and nothing more than safely self-supporting. A reduction of the fee of each Candidate by only one shilling would convert the surplus into a deficit, and the University has no fund from which the scheme could be subsidised if it proved financially a failure. One great advantage of the system lies in the fact that the examiners have other employments and only undertake the work of examination for three or four weeks in vacation. A system which paid annual salaries to permanent examiners with no other employment would be much more costly.

The Regulations for the Examinations may always be obtained free from the Secretary, the Rev. G. F. Browne, B.D., St Catharine's College. They are generally issued twelve months before the Examination, which at present takes place in the second or third week in December so as to be completed before Christmas. As soon as possible after the Examination, Class Lists are published, and at a later period a Report, with Tables which shew exactly in what subjects each candidate satis-

fied the examiners and in what subjects he failed. A book containing the Examination Papers of the previous month is published in January and is a valuable guide in preparing for a future Examination.

It will be seen from the Regulations that the University has not sought to impose one precise course of work upon all schools and scholars, but has left a large field for the choice of master and pupil. Indeed the scheme was not drawn up from an *a priori* view of what schools ought to teach, upon which point opinions might vary, but it accepted the subjects now actually taught in the schools, and confined the necessary qualifications for passing to a knowledge of the rudiments of education with the addition of two or three special subjects. The difficult question of Theology has been treated in a way which may fairly claim the merit of complete success. The scheme avoids making examination in Church formularies necessary for any candidate, by giving alternatives for the Church Catechism and the Book of Common Prayer. Further, it allows any parent or guardian to withdraw a student from the Theological part altogether by simply signing a printed "form of objection." The proportion of the candidates thus withdrawn is very small indeed. The Oxford scheme originally made the Prayer-book an essential part of the Examination, and did not permit the Theological part of the Examination to have any weight in arranging the

order and classes of successful candidates: but the number of those who declined the Theological part of the Examination was so large (viz. 36 per cent.), that the scheme was afterwards approximated to the Cambridge plan. The Cambridge Syndicate has taken the further step of allowing Candidates to obtain marks by passing in the Old Testament alone, to meet the case of Jews, or in the New Testament alone.

It may be desirable to point out the main differences between the Oxford and Cambridge schemes, and to say a few words on some of them. Oxford confers on those who pass the Senior Examination the title of Associate in Arts, and on the Juniors merely a certificate; Cambridge gives a certificate only to both classes. Oxford does not set special books in languages for the Senior Examination; Cambridge does, but adds also some passages from books other than those set, and rejects all who do not satisfy the examiners in this part of the examination in a language. Cambridge also refuses to grant the "mark of distinction" in a language to any candidate who does not shew fair proficiency in translating from English into the language: and in all probability Oxford has in practice the same rule. Oxford requires all candidates to pass in a language or a science; Cambridge leaves it possible for a Junior candidate to obtain a certificate by a satisfactory knowledge of the Preliminary Subjects, with Religious Knowledge, a play of Shakespeare, English

History, and Geography, *i.e.* the material of what is called an "English education," but it gives to such candidates a certificate of an inferior character.

The question of granting the title of A.A. or A.C., *Associate in Arts*, or *Associate of Cambridge*, was fully discussed at the time when the Examinations were being instituted. The decision of Cambridge not to grant such a title put an end to the proposal that the two Universities should act in concert in conducting Local Examinations. The unwillingness to grant a quasi-title of degree, and to grant it to a student who has never personally come under the eye of the University or given any proofs of moral character and conduct, seems neither unnatural nor unwise. Students who have passed the Cambridge Examination are at liberty to use any letters they please after their name to signify the fact, such as C.S.C., *Certificated Student, Cambridge*, but the University has shewn no signs of reconsidering its decision not to authorise any such form. There can be no doubt that the number of Senior candidates examined by Oxford as compared with the number of Juniors is considerably in excess of the proportion in the Cambridge Examination, and the grant of the title A.A. is usually given as one reason for this excess.

Opinion is divided as to the wisdom of giving special books in French, German, Latin and Greek for the examination of students some of whom are close upon eighteen years of age. On the one hand,

there is a fear that masters may take more pains to teach such students the translation of a special book than to teach them broadly the language in which it is written. On the other hand, more precise and accurate knowledge is to be looked for when the attention is confined to one or two books for the special purposes of the Examination, and it is probable that a higher standard of actual proficiency may be expected and maintained. On the whole, it is perhaps well that the two systems should both continue to receive recognition as at present.

It has been said that "the Oxford certificate is worth more than the Cambridge certificate," because Oxford requires Junior Candidates to pass in a language or in a science. But a certificate is worth exactly what it bears on the face of it. A Cambridge certificate which includes among other subjects a language or a science will compare on equal terms with an Oxford certificate testifying to acquirements in the same branches of study. A Cambridge certificate which does not include a language or a science cannot be—so far as that special deficiency is concerned—as good as an Oxford certificate, which cannot have such a deficiency. This difference of standard would be serious if many candidates attempted to avail themselves of it by omitting from their education all training in language or science. But the number of those who enter for neither is very small, and there is no proof that any of these have had no teaching what-

ever in language or science. Some years ago, when a calculation was made, about 60 candidates out of 2,200 entered neither for language nor for science. In December, 1881, out of 2,237 Junior boys and 1,144 Junior girls who obtained Certificates, only 119 boys and 53 girls obtained the lowest grade of certificate, for English subjects only; and a very large proportion of these were examined in language or science but failed. Thus the Cambridge system does not appear to have the effect of tempting candidates to neglect the study of language or science or both, while it does admit to the advantages of competition and comparison the better pupils of schools which only aim at a complete "English education." Schools are thus brought within the influence of the University which would otherwise be entirely beyond the pale.

It was mentioned at the outset that girls have been admitted to these Examinations since 1865, and have in many cases achieved great success. The number of these candidates increases more rapidly than the number of the boys, and in December, 1881, two-fifths of the whole number of candidates entered were girls. Girls have more recently been admitted to the Oxford examinations also. Cambridge leaves it to the girls or their parents to decide whether their names shall be published or not in the Class Lists, Oxford makes no difference between girls and boys.

HIGHER LOCAL EXAMINATIONS.



IN 1869, the Local Examinations Syndicate instituted an annual Examination for Women above the age of eighteen years. There were three classes of students to whom such an examination would evidently be a boon, while all would be guided in their studies and incited to regular work. Those who intended to become governesses and could obtain the certificate of the University would enter their profession with a very valuable introduction. Those who, having no such intention, were unwilling to cease to be students when they left school or passed from the hands of the governess, would have an object for which to work, something to save them from falling into desultory habits of reading. And in many cases where direct education had not ceased at eighteen, the highest part of a young woman's education could be tested by such an examination, when she could no longer be admitted to the Local Examinations on account of her age. This examination has made very satisfactory progress. Already the Cambridge certificate is of great and recognised value to governesses and teachers, while the careful

training the candidates must have gone through cannot but have a happy effect upon the educational character of the instruction they give. It was found some years ago, when enquiry was made, that not more than one-third of the whole number of candidates were engaged in tuition or were preparing for that profession, so that the Examination has large uses beyond that of training and certificating teachers. The number of entries on the last occasion was 871.

The Examination for Women has been opened to Men above 18 years of age. The original purpose of this extension, the importance of which may prove to be great, was to further and simplify the work of the new Syndicate to whose care the establishment of courses of Lectures in populous places was committed, a work now combined with that of the Local Examinations Syndicate. It will be seen, however, that the effects of the step may reach much further than this. Schoolmasters who have no University degree, will naturally seek to obtain the certificate of having passed the Higher Local Examination. Others who by making some sacrifice could give the necessary time for residence for a degree, will have a reliable means of testing their powers before entering the University. It is to be hoped that the Examination may lead in some cases to the discovery of abilities of a high order among those who without such encouragement would not have thought of a University course. The published Regulations

shew that the Examination embraces a very large number of subjects of study, among which a free choice is given to candidates, while a reference to the Book of Examination Papers will shew that the subjects must be prepared in an intelligent and thorough manner. A high standard is maintained by the Examiners.

LOCAL LECTURES.

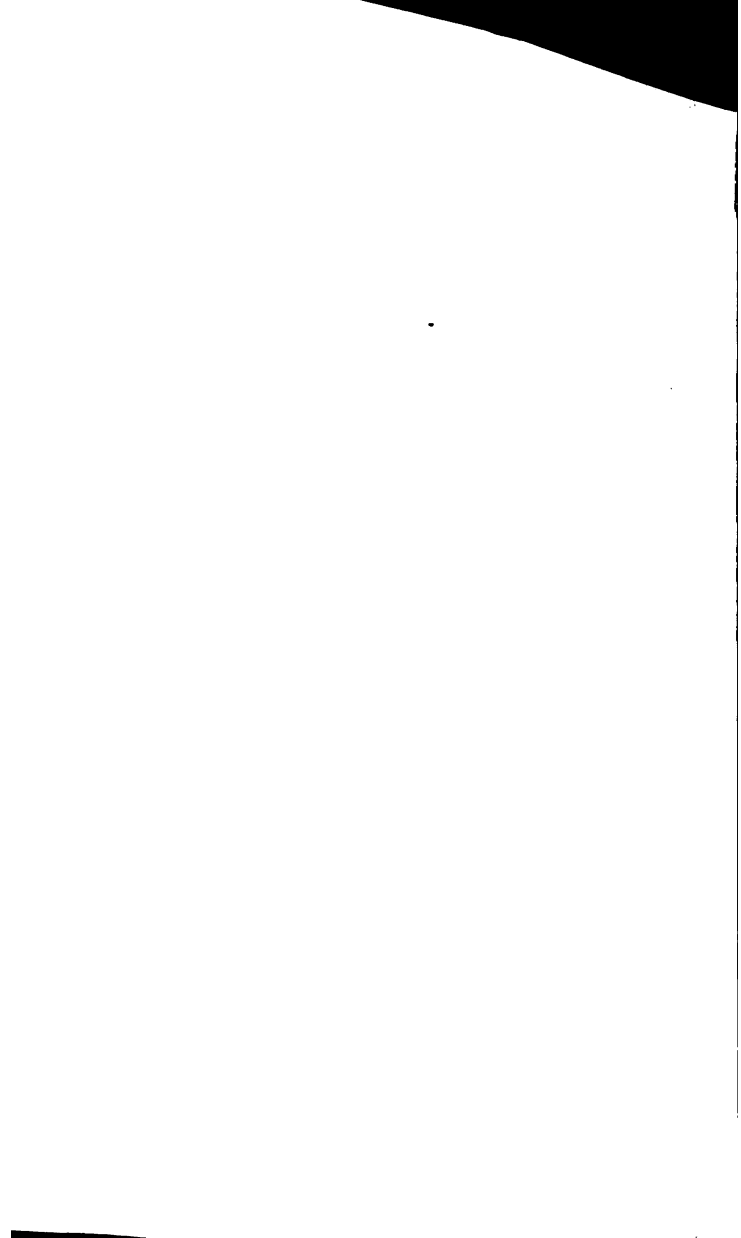
A Syndicate, appointed to arrange Courses of Lectures in populous towns and to provide lecturers, has been combined with the Local Examinations Syndicate. Particulars may be obtained from the Rev. G. F. Browne, B.D., St Catharine's College. The work done in the few last years in this branch has been of a very important character and has led to the establishment in Sheffield, Nottingham, and elsewhere, of local Colleges on a large scale. By the New Statutes of the University, such Colleges can be affiliated to the University on terms highly advantageous to their students.

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